Communication Technology and Digital Divide

Dr. Nidhi Singh

Assistant Professor, Institute of Cooperative and Corporate Management, Research and Training, Lucknow
e-mail:nidhiks7@gmail.com

ABSTRACT

Purpose: The purpose of this study to study that usage of communication technology is leading to digital divide and what are the sources of digital divide.

Design/Methodology/Approach: Extensive Review of literature has been done for conceptualization of usage of communication technology leading to digital divide and secondary data available had been analyzed.

Implication: The paper adds to the existing literature of communication technology and digital divide. Usage of communication technology is common now days and it is to be seen that whether the divide exists and literally in this developing phase we are still having such issues.

Keywords: Communication technology, Digital divide, Gender, Urban-Rural Divide, Active Internet Users.

Introduction

Today we are living in the world where communication technology is involved in all human activity at a fast rate. Communication technology is used for growth and productivity as well as for human welfare but as we are deeply involved in its usage we are unable to see the pitfalls it had and whether is it used or creating options for all to improve the standard of living, or just available only to a group of people.

Communication technology is basically meant to the Internet and mobile phones and other services are through them. According to the data of Census 2011 only 3.1 percent of total houses have internet access in India. The Internet includes both broadband and low-speed connections. Only one state and two union territory in India has Internet density of over 10%. Chandigarh(U/T) has the highest 18.8% of total households Internet users, followed by NCT of Delhi(U/T) 17.6% and Goa 12.7%.Bihar has below 1% of total households Internet users which is the lowest in India. The figure 1 is showing the total population of India and the active internet user in India year 2020.

	All India	Urban	Rural
Population	1433 MN	485 MN	948 MN
Active Internet Users	622 MN	323 MN	299 MN

Figure 1: Population statics of India

*Source: ICube 2020 report by IAMAI*

Digital Divide is there in India not for to just only participate in the race to move fast and become a developed nation rather while running in the race we are concentration only on a group of people and counting them as a whole in the nation and leaving others. Human Development is exactly meant when it is done for all not only for few.

This paper highlights about what factors are leading to digital divide and how digital divide is related to communication technology usage. What are the problems due to which digital divide is there in India and we should look that these factors should be looked up to overcome digital divide issues..

Communication Technology, Digital divide and factors affecting digital divide

Concept of Communication technology

Communication Technology is a relational field (simply, a medium that connects people) and its implications for human communication and listening. It tend to be one–way, taking people away from community activity[i] and controlled by political economic interests—as opposed to interactive media channels which are, and have the potential to be, a means for extending interactive human communication (dependent on perception) **Purdy (1997).**
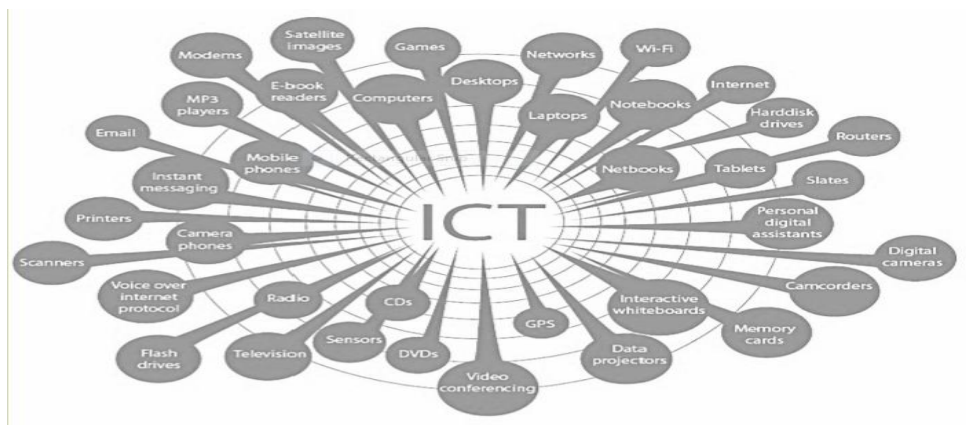
(UNESCO Bangkok, 2012)

Figure 2: Communication technology

Source: https://welcometoworldofict.blogspot.com/2016/12/what-is-ict.html

Communication technologies are used to make life better that means development of human being is done but if we are digitally divided how could these technologies help the development of all and in this globalized world if we are unable to look over development of all how could we can say that we are developing rather development is there only for some. The information provided by the internet but be of great benefit in creating knowledge but these technologies could never be used by their own for that human beings are to be made available to operate them **(Lee, 2001).**

Concept of Digital Divide

The digital divide is the gap that exists in access to ICTs between countries, regions, communities, gender, or age groups. It can manifest itself internationally and within communities and is shaped by the economic, political, and sociological context in which it occur **Guillén and Suárez (2005**). **Norris (2001)** describes (a) global divide manifested by different capabilities between the developed and developing nations; (b) social divide due to inequalities within a given population; and (c) democratic divide allowing for different levels of civic participation. **Kenniston (2002)** describes four social divisions: (a) those who are rich and powerful and those who are not; (b) those who speak English and those who don't; (c) those who have access to technically advanced regions and those who don't; and (d) those who are techno-savvy and those who aren't.

Issues for Digital Divide in Indian Scenario

Different authors had discussed what factors impact usage of communication technology:
Lack of Literacy – According to the census of 2011 it could be seen that 74.04 % and literacy is termed just having reading and writing skills. To equip with skills one should just do not have basic knowledge of education so how development of all is possible. This shows as a clear source of digital divide.
Education System – Access to education is not available to all due to high education cost and if education is not available at ease skills couldn't be gained and operation of technologies are not possible. Dropout rate at undergraduate level is also high which create problem in knowledge and skill gain. Libraries are termed to be most useful in the learning process but proper availability is not there and if available then it is for the some group of people.
Gender- According to the census of 2011 male literacy rate is 82.14% and female literacy rate is 65.46% which shows the gap exist there and at an initial stage the gap exist so how come accessibility of technologies could be available to all. Yet too many female are out of their house but then also the mindset is there they are born to be housewives and not only in rural but also in urban areas.
Age- Youths have greater access to these technologies as compared to aged people or children so division is there, and if access is available then also only some and for basic purpose that is connectedness to communicate.
Language- The 1991 Census had 10,400 raw returns and they were rationalized into 1576 mother tongues. They are further rationalized into 216 mother tongues, and grouped under 114 languages **(Mallikarjun, B 2004).** Language problem is there for access of information yet different language

option is made for the accessibility but then also it is tough to get to learn to use it on keyboard and not all information is available in the required language as basic language to display information is English only.

Income- Income is the biggest factor for creation of digital divide as all are unable to excess the technology due to the income disparity in India.

Other issues- There are many other issues such as electricity access is not available for all, attitudinal factors as it is only for brainy people, cultural factors as it is not made for us Residency is also a factor that is people living in urban areas are more connected than rural one's. Content is also a factor as people feel that no relevant content is there so authenticity of it should be looked up.

Objective of the study

The objectives of the study are as follows:

The purpose of the paper was to develop a theoretical framework for further understanding of the concept of digital divide by the usage of communication technology.

It seeks to identify factors which are involved in digital divide.

Research Methodology

The purpose of the paper is to find the factors that are responsible in digital divide. Secondary data had been analysed to find the factors responsible for digital divide.

Digital divide and communication technology usage

Communication technology discussed here is related to the use of internet through any means whether laptop, Smartphone, personal computers etc and the **IAMAI 2020** report clearly discusses the issues related to **non use of internet or less use of internet** among the users of India, the reasons behind not accessing Internet services can be grouped into following categories:

1. Gender Divide
2. Urban-Rural Divide

Gender Digital Divide

The gap between individuals who have immediate access to computers, cellphones, or other devices, as well as the internet, and those who do not is ref erred to as the "digital divide." (**Ragnedda and Muschert, 2013; Selwyn, 2004; Rogers, 2001**). Additionally, there is the idea of a "digital gender difference," which asserts that access to IT technology differs for men and women. (**Cooper, 2006; Cooper and Weaver, 2003; Hilbert, 2011).**
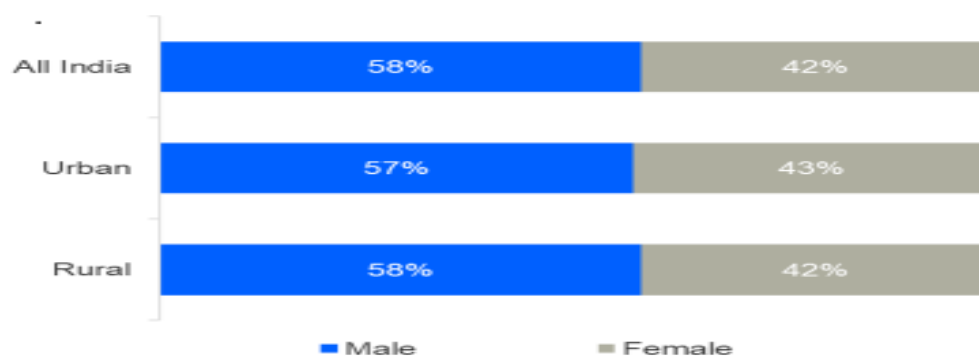
The gender statics is discussed in Fig 3.

Figure 3: Gender Divide Statics

Source: Kantar ICube 2020

According to Fig.2, 58% of India's 622 million AIU are male, with the remaining 42% being female. The fact that India's internet user market is still dominated by men highlights the digital gender gap, but it is currently narrowing. In both rural and urban India, the ratio of AIU males to females is essentially unchanged. In rural India, the ratio of male to female Internet users is 58:42, compared to a male to female Internet user ratio of about 57:43 in urban India.

Urban-Rural Digital Divide

Early adopters of all sorts of innovation are often more cosmopolitan in their communication styles, have greater social position, and have more years

of formal education (**Everett,1995).** It has also been found that income; education and age are associated with the technology adopters, late adopters and non-adopters **(Lin, 1998)**. Access to ICTs is influenced by a variety of factors, including geographic location.It shows that despite the fact that ICTs can help spatially separate rural individuals, rural residents are still anticipated to lag behind urban residents due to a lack of telecommunication infrastructure and cultural differences **(Hindman, 2000).**
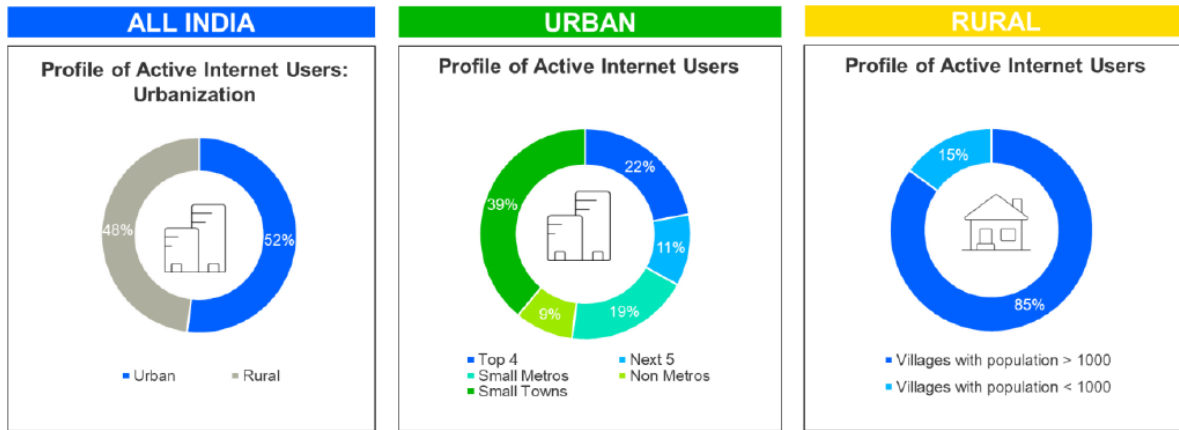

Figure 4: Urban-Rural Digital Divide Statics

Source: Kantar ICube 2020

Urban India has a diverse population of internet users from various town classes. Nearly 2 in 5 people in urban India who use the internet regularly live in small towns, compared to 33% in the top 9 metro areas. 85% of the AIU come from villages in rural India that have more than 1000 residents. Although there is a difference between urban and rural internet penetration, AIU has not been distributed equally across all states. Maharashtra, Goa, and Kerala have the greatest state-level penetrations of active internet users, while Bihar has the lowest.

Non internet users urban India

In urban areas the most dominating reason amongst urban non –users is **Lack of Knowledge** which basically comprises of **low awareness on benefits of internet**, **need to learn the PC**
Secondly discussed is **Lack of Means in** which the issues looked up were **Don't own PC, No time to access internet, don't own internet connection, Can't afford internet connection.**
Thirdly discussed is **Opinion and Beliefs and the issues discussed were No need of internet, Internet is for young people, Internet is not a good medium**

Non internet users rural India

In rural areas the most dominating reason amongst urban non –users is **Lack of Knowledge** which discusses **Low awareness on benefits of internet** ,**PC illiterate.**
Second issue was **Lack of Means which covers No PC at my home, No Internet at my home, Can't afford internet connection.**
Thirdly discussed **is Opinion and Beliefs** which further discusses **No need of internet**
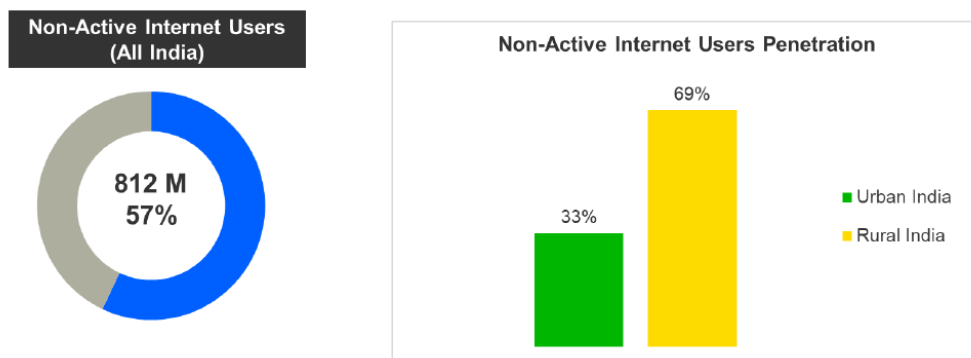

Figure 5: Non Active User statics

Source: Kantar ICube 2020

The Fig. 5 explains that the non active user base also shows the difference between the urban and rural, and as the previous research illustrates that the reasons may be many.

Conclusion

Digital Divide implies to the ease of access of communication technology by the group of people and not by others, it is not at national level but also at international level. In the year 1990 the government and the other bodies were concerned about this issue. Communication technologies are concerned as a factor for human development but human development is not just concerned to specific group of people, it s only done when each and every person development is done.

This paper has examined various facets of India's digital divide. The data shows that although Internet usage has grown dramatically over time in India, there is still a digital divide in ICT usage. It has been discovered that men utilise the Internet at a higher rate than women do. Additionally, there is a sizable difference in Internet usage between urban and rural residents, and there are also issues with connectivity for some users. India's population can benefit from a digitally linked nation in terms of their entire development, and this digital inclusion can be achieved by bolstering and improving factors like digital literacy and basic infrastructure.

The government has already made some initiatives, but it remains to be seen how far they have spread and whether or not people are benefiting. Since the majority of digital breakthroughs and initiatives were implemented after 2014, it would take some more time to assess the success of the different advances made possible by the Digital India project. The Digital India programme represents the start of a digital revolution, and if it is effectively carried out, it may truly make India digitally inclusive and help the nation thrive and develop. A growing young population in India who has access to and is equipped with technology can guide the nation up the development ladder.

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