

**USAGE PATTERNS OF MOBILE PHONE AND  
INTERNET AMONG MARGINALIZED COLLEGE  
STUDENTS: A CASE STUDY IN MALDA DISTRICT,  
WEST BENGAL**

A thesis submitted to Jadavpur University for the Degree of Doctor  
of Philosophy (PhD) in Sociology

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**Usage Patterns of Mobile Phone and Internet Among Marginalized College Students: A Case Study in Malda District, West Bengal** submitted by me for the award of the Degree of Doctor of Philosophy in Arts at Jadavpur University is based upon my work carried out under supervision of Prof. Bipul Kumar Bhadra, retired Professor Department of Sociology, Jadavpur University, Kolkata. And neither this thesis nor any part of it has been submitted before for any degree or diploma anywhere/elsewhere.

**Countersigned by the Supervisor**

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**Dated:**

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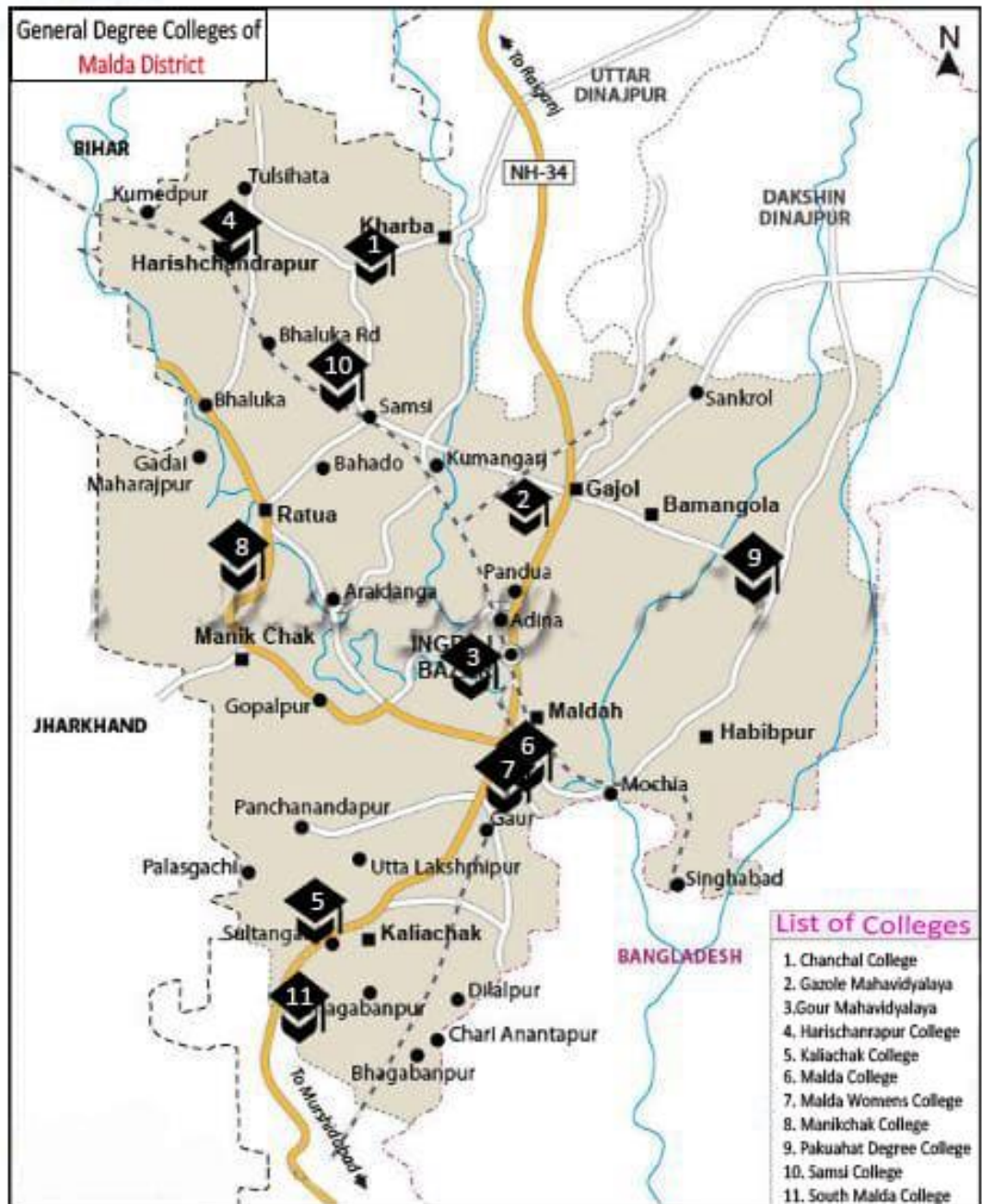
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# *Chapter: 1*

## **Introduction**

### **1.1 Preliminary Remarks:**

WhatsApp! Join my Twitter following! Check out my Facebook page! For today's young people, these are the drone noises and fizz words. In the age of information and communication technologies, anyone unfamiliar with these terms is outdated or unfashionable. We are in the midst of a technological revolution. In all of human history, we have never witnessed such fast advances in scientific and technological understanding as we are seeing now.<sup>1</sup>

The world outside our societies is opened up by technical advances or improvements. The internet and cell phones are two instances of products that have evolved technologically. Throughout the years, it has undergone several changes, all of which have resulted in a significant rise in output. There are three stages of technological advancement for items and processes, as illustrated below:

- Invention — the creation of a new product or method
- Innovation — the implementation of an innovation for the first time
- Diffusion — the rate at which other people embrace the invention.

Nowadays, smartphones and the internet are no longer a fashion used by wealthy people but have become an integral part of our daily lives. Mobile phones and the internet have emerged as two of the most important communication tools of the modern day. There has been a steady rise in the number of mobile phones and the internet. Our social lives have been transformed by the internet and mobile phone technologies. It has changed our communication, helped us find information, made our life enjoyable, and many more. Moreover, the ongoing advancement of new working frameworks, bottomless applications, and rivalry between merchants has

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<sup>1</sup> Stansberry, A. et al. 2019. Experts Optimistic About the Next 50 Years of Digital Life. Pew Research Center and Elon University Imagining the Internet Center.

encouraged a surprising development in clients. It becomes a key component of societal economic, social, political, and cultural manifestations.

A mobile phone is a portable electronic device that transmits and receives data using radio waves or satellite signals over a wireless network. Internet access is available through a variety of devices, including mobile phones, PCs, and other communication mediums. It was hard to carry a mobile phone in a pocket in the beginning. Since then, cell phones and computers have undergone several revisions and improvements. Amazingly, in 1980, the first computer-based telephone was created. Today, a mobile phone plus an internet connection offers a wide range of services, including voice conversations, text messaging (SMS), multimedia messaging (MMS), photos and video recording, internet surfing, calendaring, and many others. The term "smartphone" refers to a high-tech mobile phone. In most cases, it features a touch screen, internet connection, and a sophisticated operating system that allows it to launch and access a variety of installed programmes. It allows users to take pictures, correspondence, recollections, individual information, wellbeing, and money-related information in a single device. It has become an integral part of modern telecommunications facilities. Within a short time, smartphones are available at a reasonable price, and nowadays, everyone can afford advanced mobile technology.

The phones allow us to get connected with anyone worldwide without any interruption. Smartphones facilitate advanced computing capabilities, such as internet communication, information retrieval, video conference, e-learning, access to e-commerce, and other features. When we talk about mobile technology, we mean just that: it's a technology that can be carried around in the same way that laptops, tablets, and other types of IT devices, like notebook PCs, can. Fast-developing technology has produced a full-featured gadget that is simple to carry, small enough to fit in one's pocket, and has many additional characteristics that make people's life easier and allow them to communicate with others more easily, access information, and be fashionable.

Mobile phones and the internet are now an inseparable part of daily life for most people. The media and government also utilise mobile phones and the internet to reach young people. News and entertainment firms use text messaging to reach a

younger demographic. When it comes to show aimed towards teenagers, viewers can cast their ballots through text message, for example. In order to engage young voters in the Indian general election, political parties launched SMS messaging campaigns. For the purpose of distributing campaign materials to voters via mobile phones, news organisations created election packages. Mobile phones and the internet are used by the police to transmit security updates during the course of elections. Voting irregularities were encouraged by the use of mobile phones.

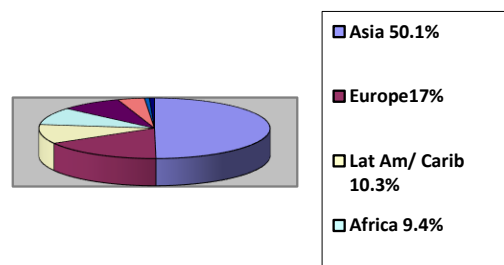
The development of mobile phones and the internet has made it possible for everyone, from any location, to communicate with anyone else. People throughout the world now rely heavily on mobile technology. As the global environment changes, it has an effect on people's ability to interact, share, work, and travel. Mobile phones and the internet have made it possible for individuals to communicate with each other at any time, access information, record and share their ideas with others, and learn new things at any location. The number of individuals utilising the Internet for educational and social purposes has increased significantly. Students now spend a significant amount of time conducting academic work and course work online, even if academic use of the internet is more common. In higher education, the Internet plays a critical role in the creation, storage, and dissemination of data and knowledge. A new generation of schools and universities are embracing the internet-based backbone of e-education to revolutionise their courses and move into the digital age.

Internet use in higher education is a crucial subject since the internet reveals tremendous possibilities in supporting online programmes and remote education. For example, the students' learning-teaching cycle is supported by technology and the Internet. Because of the rapid development of internet technology, students now have the chance to acquire skills necessary for success in today's world of work, play, and recreation. Connecting with the rest of the world is now easier than ever before. The Internet and all of its features make it simple to get information and put it together in a usable fashion. Likewise, the Internet offers an actual opportunity for the integration of multi-social, multi-age, and sexual orientation instructional change into the artwork programme by integrating visual assets and logical data from many societies for craftsmanship training. Educators of the arts may find a wealth of information and

tools on the Internet, including e-mail and curriculum ideas as well as access to databases from across the world, including scholarly publications and encyclopedias.

Asian countries lead all others with a combined 50.1% of Internet users; Europe is second with 17.0% and North America is third with 8.6%. Latin American and the Caribbean round out the top five with 10.3%. However, Internet users in other parts of the world are far lower (Fig. 1). It's evident from this list, which includes both developed and developing countries, that those in the aforementioned locations have better access to the Internet.

**Figure 1: Global Internet Users by Regions, First Quarter of 2017**



Source: Internet world stats- [www.internetworldstats.com](http://www.internetworldstats.com)

As of July 2018, there were over 4.1 billion internet users throughout the world, with 3.3 billion of those individuals also using social media. A new survey indicates that, the United States, China, and India have the greatest number of internet users in the globe.<sup>2</sup>

## 1.2 Rationalization of the Study:

Suppose we're trying to figure out why human society has progressed from the dawn of time to the current day. In that case, we can see that it passed through several stages of development, and one of the key reasons for such evolution of the world is technology. Technologies play a vital role in human social development in several stages of society. Without technology, such social evolution may not be possible. It should be remembered that technological advancements have not reached all segments of human society, and that the time it took for such advancements to spread

<sup>2</sup> Internet Users in The World by Regions- 2017 Q1 Retrieved from <https://www.statista.com/statistics/617136/digital-population-worldwide>. Accessed on 18/01/2018.

has been lengthy. However, only information and communication technologies (ICTs) have reached the greatest number of individuals in human civilization in a very short period of time.

Human civilization is undergoing rapid transformation as a result of the rapid advancement of science and technology. New developments in social life have been revealed by modern scientific and technological advancements. Every day, our civilization moves closer and closer to the most up-to-date information and technology. Mobile phones and the internet are two of the most important channels for this transformation. Early on, cell phones and the internet were expensive; only a few well-off individuals were able to purchase them. In today's world, cell phones and the internet are used by individuals of all socioeconomic backgrounds. After then, the number of internet users and the influence they have on society continues to expand.

Mobile phones and the internet are now widely used by college students throughout the world. A growing academic interest and research subject is the development of a global student culture based on mobile phone and internet use. Young people's mobile phone use has been the subject of several academic investigations. This study contributes to the expanding corpus of research on mobile phone use by college students in India by offering practical facts. For instance, research on the usage of mobile phones by college students in several nations has investigated their function as fashion accessories, means of communication with friends and family, and access to the most recent information and entertainment.

Social marginalisation is the condition of being placed on the periphery of a society. Being held at or being pushed beyond the level of civilisation is what it means to be marginalised in metaphorical terms. As a result of being denied basic welfare rights, residents in India experience social and economic inclusion as a negative freedom rather than a positive one. In India, caste and untouchability are used as a basis for social exclusion. As a result, many Indians, notably those from the Scheduled Caste, Scheduled Tribe, and Other Backward Classes, find themselves on the periphery of the middle and upper classes. The development of underprivileged kids should be the first step in resolving this problem for future generations.

Mobile phone and internet use patterns among disadvantaged college students in Malda, West Bengal, India, are examined in this study. These patterns include

personal enjoyment, communication, and access to news and information. Additionally, it provides information on its use as a means of expressing uniqueness, bargaining with parents, and keeping friendships as children. When it comes to social and technical transformation, this study provides evidence of how technology has a direct effect on society. In reality, technology is formed by the community and improvised to fit the needs of the moment. Technology as a means to an end analysis of the social aspects that may enhance or detract from effective use of Personal Computers in educational settings is provided by theory. To put it another way, the core claim of the Actor-Network Theory (ANT) is that socio-technical systems are constructed from a variety of disparate components. To some, these battles over technology might be perceived as attempts by proponents of various techniques to impose their design on others.<sup>3</sup>

It has been shown in this study that minority college students in the Malda area utilise mobile phones and the internet for a variety of reasons stemming from their personal, social, and moral concerns. The findings of Malda district's disadvantaged college students' usage of mobile phones and the internet suggest that the social construction of technology and the social shaping framework are supported by this study.

### **1.3 Scope of the study:**

Mobile phones and the internet have become indispensable tools in our modern lives, and we would be lost without them. However, many refuse to use cell phones. By the 2020s, the use of high-end mobile technology will be omnipresent worldwide, with 70% of smartphone use and 90% of mobile broadband coverage.<sup>4</sup> Social variables, spending power, and wealth all have a role in how widely young people are adopting and using mobile phones and internet. Politico-economic variables like the availability of mobile and internet services are also important. Young people's adoption and use of mobile phones is heavily reliant on the enticing marketing of the phone's manufacturer.

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<sup>3</sup> Ritzer, Z. And J. Michael Ryan. 2011. *The Concise Encyclopaedia of Sociology*. Blackwell Publishing Ltd. P. 3-6.

<sup>4</sup> Press release, June 03, 2015. Ericsson.

Mobile phones and the internet are seen and used by young people in a certain age range in this study. Theoretical models are used to evaluate the use of mobile phones, although diverse models and ideas may yield different findings on cell phone use among young people. There are no cross-country comparisons of young people's use of mobile phones and the internet in this study. This study's findings, on the other hand, may be compared to those of similar studies carried out in other nations.

Young people in India aren't using their mobile phones in the same way, as one survey found. Within the country, there are several cultural differences. Because of this, there may be geographical differences in the number of young people in India who use cell phones. After ten years of the study's completion, the results may no longer be relevant due to technological advancements, changes in government legislation and business practises governing mobile phones and promotion and advertising, and price adjustments for mobile services. In addition, this research evaluates the usage of mobile phones by students between the ages of 18 and 25 in Malda district, West Bengal. This study's findings may not be applicable to people of different ages.

#### **1.4 An Overview of the Research Field:**

The world's largest populous democracy, India is located in southern Asia and has more than 1.3 billion citizens. A parliamentary system governs this holy government republic, which is made up of 29 states and seven federal territories. People in different sections of the nation speak different languages and follow diverse cultural norms. As a result, there is likely to be a regional variation in the use of mobile phones. Mobile phones and the internet are being used to analyse how today's disenfranchised college students connect and build relationships with each other. For the most part, the research aims to discover how mobile phone and internet use affects underrepresented college students in West Bengal's Malda District.<sup>5</sup>

At latitudes ranging from 24 40'20" north to 25 32'08" north and east to 88 28'10" east, the district is located. The city of Malda is known as the "entrance to North Bengal." Gour-main Banga's city, with its 1,441 square mile (3,733 km<sup>2</sup>) land area, used to be located in a region divided into three sections: Barind, Tal and Diara.

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<sup>5</sup> West Bengal, one of India's 28 states, is located in the country's northeast. Retrieved from [https://en.wikipedia.org/wiki/West\\_Bengal](https://en.wikipedia.org/wiki/West_Bengal). Accessed on 12/05/2018.

There are 399,790 people living in the Malda district, as per the 2011 census. With 939 women for every 1000 men, Malda has an education rate of 62.11%.<sup>6</sup>

Bihar and Uttar Dinajpur are part of the district, as are Murshidabad, Bangladesh, and Jharkhand and Bihar to the west. Bangladesh shares a boundary of 165.5 kilometres. Malda Sadar and Chanchal are two of the district's subdivisions. Ratua I, Ratua II, Harishchandrapur I and Harishchandrapur II make up Chanchal, as do Chanchal-I, Chanchal II, Ratua I, Ratua II, and Harishchandrapur-I. In contrast, the district Malda Sadar comprises of English Bazar and Old Malda municipalities and nine blocks: English Bazar, Gazole; Habibpur; Bamangola; Manickchak; Old Malda; Kaliachak; and Kaliachak-II and III. As the district's administrative centre, English Bazar there are two municipalities, eleven police stations, fifteen development blocks, 146 Gram Panchayats, and 3,701 villages in the region. English Bazar and Old Malda are two of the 10 city units.

Plains and undulating landscapes cover the majority of the district's landscape, which is descending toward the south. The Mahananda River separates the district into two distinct areas: the "Barind" region, which is known for its sparsely productive soil, and the "Eastern" region, which is dominated by historic alluvial deposits. The Kalindi River divides the western region into two distinct areas: Tal in the north, a low-lying area susceptible to flooding during the rainy season, and Diara in the south, a rich and densely inhabited area. The Ganges River flows across the district's south-west boundary. Tango, Punarbhaba, Pagla, Bhagirathi, and Kalindi are among the other major rivers.<sup>7,8</sup>

The Barind's mostly Hindu population includes a significant number of people from the so-called "Scheduled Castes" and "Scheduled Tribes." Tal and Diara are home to the majority of the district's Muslims, who are concentrated in those areas. There is little ST settlement outside of the Barind, in line with the Indian tribal penchant for secluded villages far from other social groupings. Most ST groups have ancestral lands that were taken from the native woods by the settlers. Historically, there were few reasons for them to leave their homelands. Nearly 40% of the Barind

<sup>6</sup>Geographical Location of Malda. Retrieved from <http://malda.gov.in/Disprof.htm>. Accessed on 18/01/2018.

<sup>7</sup>Geography of Malda District. Retrieved from <http://www.malda.gov.in/>. Accessed on 12/05/2018.

<sup>8</sup>Population of Malda. Retrieved from [https://www.indianetzone.com/45/geography\\_malda\\_district.htm](https://www.indianetzone.com/45/geography_malda_district.htm) Accessed on 12/05/2018.

population is made up of SC people, and this is also true in the Tal region. Their numbers are lower in the Muslim-majority Diara. Barind has better regional literacy than Tal and Diara despite the presence of SC/ST residents. This might be attributed to the higher literacy rates among men in Barind. In addition, the percentage of literate men in Malda is a much greater than the percentage of literate women in the area as a whole. Due to the larger Muslim population and lower male to female literacy ratios in the Tal and Diara, these areas have historically been characterised by low literacy rates. District Malda's human development possibilities have grown increasingly complicated. Agriculture and other farm-based businesses, such as the agricultural trade, have been the primary sources of employment for area residents. People's living and employment options appear to be directly linked to the intensity of human settlement across Malda areas. The following is a list of the Malda district's eleven general degree colleges:

- a. **Malda College:** It was in 1944 that the Malda College was founded. The institution is located in Malda, West Bengal, India, at English Bazar. It provides a wide range of undergraduate and post-graduate programmes in the humanities, sciences, and business. The university with which this college is connected is Gour Banga University.<sup>9</sup>
- b. **Malda Women's College:** Since its inception in 1970, the sole institution for women in the Malda district has been the Malda Women's College. Students can pursue a bachelor's degree in the arts here. The college is located in Malda, a city in eastern India. It has ties to Gour Banga University.<sup>10</sup>
- c. **Gour Mahavidyalaya:** Old Malda is located in the Malda district of West Bengal, India, and it is home to Gour Mahavidyalaya (abbreviated as GM), a prestigious educational institution offering undergraduate courses in the arts and sciences. There is no other institution in Malda or the surrounding areas that provides a Bachelor of Arts (Honours) in Mass Communication and Journalism after the standard three years of study. N.H. 34 passes through Gour Mahavidyalaya, which is situated on the north bank of the

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<sup>9</sup>Overview of Malda Women's College. Retrieved from <https://maldacollege.ac.in/>. Accessed on 13/05/2018.

<sup>10</sup>Overview of Malda Women's College. Retrieved from <https://mwc.ac.in/mwc/>. Accessed on 13/05/2018.

Mahananda River. On November 5, 1985, the college was founded; it is associated with the University of Gour Banga.<sup>11</sup>

- d. **Samsi College:** Mr. Kamalakar Mishra (I.A.S.), the then-President and District Magistrate of Maldah, founded this college in 1967, making it the second-oldest higher education institution in the Malda district. Donations of both money and land from local residents allowed for the founding of the institution in Samsi. Classes at the institution first began at Samsi Agril High School in 1968. The institution was able to erect its own temporary mud building on its current site in the Kandaran neighbourhood within two years of its founding. Those students who come from far away can stay in one of two secure boys' or girls' hostels.<sup>12</sup>
- e. **Chanchal College:** It is located in the Chanchal Subdivision of North Malda, which is home to Chanchal College. Students from North Malda, which is the district's most backward minority-dominated sector, are served by the institute, which was established in 1969. University of Gour Banga-affiliated college provides undergraduate courses in the arts, science and commerce streams.<sup>13</sup>
- f. **Gazole Mahavidyalaya:** Gazole Mahavidyalaya may be found in the northern portion of Malda, only a short distance west of National Highway 34. For this S.C. and S.T prone area, it was formed to provide knowledge-based higher education in 2006. Undergraduate courses in the arts are available at Gour Banga University's associated college.<sup>14</sup>
- g. **Harishchandrapur College:** In Pipla, Harishchandrapur, West Bengal, India, Harishchandrapur College is a college. Founded in 2008 and linked with the University of Gour Banga, the college offers undergraduate arts programmes.<sup>15</sup>

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<sup>11</sup> Overview of Gour Mahavidyalaya. Retrieved from <http://www.gourmaha.org/>. Accessed on 13/05/2018.

<sup>12</sup> Overview of Samsi College. Retrieved from [https://www.samsicollege.ac.in/samsi\\_college/index.php](https://www.samsicollege.ac.in/samsi_college/index.php). Accessed on 13/05/2018.

<sup>13</sup> Overview of Chanchal College. Retrieved from <http://chanchalcollege.ac.in/>. Accessed on 13/05/2018.

<sup>14</sup> Overview of Gazole Mahavidyalaya. Retrieved <http://www.gazolemahavidyalaya.org>. Accessed on 15/05/2018.

<sup>15</sup> Overview of Harishchandrapur College. Retrieved from <http://www.harishchandrapurcollege.org.in>. Accessed on 15/05/2018.

- h. Kaliachak College:** Kaliachak College is located 25 kilometres outside of Malda Town at Sultanganj, Kaliachak, Malda. The institution was founded on August 14, 1995, with the goal of improving the quality of life for the inhabitants of the Kaliachak region. University of Gour Banga-affiliated college provides undergraduate arts and science courses.<sup>16</sup>
- i. Manikchak College:** It is located in Mathurapur, 35 kilometres from Malda's district headquarters. Manikchak College: Founded in 2014, the university-affiliated institution offers undergraduate degrees in the arts.<sup>17</sup>
- j. Pakuahat Degree College:** West Bengal, India's Malda district is home to Pakuahat Degree College in the town of Pakuahat. It was founded in 1997 with the goal of providing the residents of this economically depressed S.C. S.T. with access to a quality education. Gour Banga University, with which the institution is associated, offers undergraduate programmes in the arts, sciences, and business.<sup>18</sup>
- k. South Malda College:** Pubarun, in the Malda is home to South Malda College. A considerable portion of the population is economically disadvantaged; hence it was formed in 1995 to provide knowledge-based higher education.<sup>19</sup>

In the Malda district's Gour Banga University, I performed my ethnographic research at over a dozen general degree institutions. I choose West Bengal's Malda district for a variety of reasons, including:

- **Firstly:** Furthermore, it is situated in the middle of West Bengal, which makes it an important gateway to North Bengal from South Bengal and a key juncture.
- **Secondly:** For the second time, the district has a substantial number of Schedule Castes, Schedule Tribes, and Other Backward Classes residents (OBC-A and OBC-B)

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<sup>16</sup> Overview of Kaliachak College. Retrieved from <https://kaliachakcollege.edu.in>. Accessed on 16/05/2018.

<sup>17</sup> Overview of Manikchak College. Retrieved from <https://manikchakcollege.com>. Accessed on 16/05/2018.

<sup>18</sup> Overview of Pakuahat Degree College. Retrieved from <http://www.pakuahatdegrecollege.com>. Accessed on 16/05/2018.

<sup>19</sup> Overview of South Malda College. Retrieved from <http://southmaldacollege.in>. Accessed on 16/05/2018.

- **Thirdly:** Malda is my hometown; thus, it was easy for me to investigate the district. With my family's aid, I could conduct study on underprivileged college students and stay with them during my research.
- **Fourthly:** because I grew up and lived in the neighbourhood, I was already familiar with its unique cultural milieu.
- **Fifthly:** In the Malda area, there is a stark contrast between the urban and rural environments.

### 1.5 Objective of the study

For the most part, this empirical study aims to find out how young people in Malda district of West Bengal, India, aged 18 to 25 use their mobile phones. Those aged 18 to 25 are considered "marginalised college students" in this study. Individuals at this era of life are said to be "transitioning" from adolescent to adulthood, according to developmental psychologists. Nowadays, adolescence lasts longer in western countries since most people don't meet the milestones of maturity like marriage, financial independence, and completing their educations. When it comes to love, employment, and the worldview, college students might extend their identity investigations in this era. As they near adulthood, they continue to seek for their own unique sense of self, as well as friendships and sexual relationships, as well as the freedom to take on the duties and obligations that come with being an adult. Those who haven't reached adulthood yet, either because they're still in school, aren't married, or aren't financially independent, are expected to use mobile phones to meet some of these developmental demands, according to this research.

At the age of 18 or 19, students in most countries are making the move from high school to university. Even yet, the precise duration of this time of transition may be variable. College students in Western nations leave their families and begin their lives on college campuses when they begin their studies. Most of them stay with their parents in India, unless they go to school outside the city. Many young people in western nations live away from home in dorms or apartments on college campuses.

Because many college students reside with their parents in the United States, they are subject to stronger parental influence than in India. As in India, where planned weddings are the norm, parents pick their children's future spouses. Dating and flirting are also discouraged among young people in traditional Indian society, and it is considered sinning to associate with one another. However, these cultural

norms are evolving, and this evolution is uneven. Traditional rules have altered significantly in major cities, although in smaller towns and villages, the culture is more traditional. According to the findings of this study, kids from disadvantaged backgrounds and urban slums exhibit distinct behavioural patterns when exposed to diverse cultural contexts. Most Malda high school graduates (those in the 11th and 12th grades) begin their college careers around the age of 18. A hostel or leased residence with friends is the norm for Malda district's out-of-town college students. For this study, I've chosen participants who live with their parents and those who live on their own.

Students in the Malda district often leave their homes in the morning and return home at night. Most high school and college students utilise local trains or buses to go about the city. Some of the underprivileged use their own vehicles, such as bicycles or motorcycles, to get around. Either they attend lectures all day or they hang out with their peers. Due to the vastness of the district, it might be difficult for parents to monitor their children's whereabouts during the educational day. As a result, it is easier for young adults to participate in behaviour that their parents may find objectionable. Whether it's in dorms, cafeterias, malls, or movie theatres, college students love to hang out in groups. College students and the Malda district's cultural norms make it difficult for young men and women to mingle or fit in with each other. Students from the Malda district's underprivileged communities may be registered in Malda district institutions, although they rarely show up for regular sessions. During the surveying phase, several students admitted that they only attend college to pay their tuition or take tests.

Malda's cultural milieu is steeped in tradition. In public locations, for example, men and women tend to form different groups. It was found that male and female students have not interacted at most college campuses, and only at a few campuses male and female students are interacting with each other.

According to social and cultural standards, men and women are differentiated by gender.' Men and women differ in biological and physiological ways that are commonly referred to as "sex," and social and cultural aspects that are expressed as masculinity and femininity and are commonly referred to as "gender." A society's conception of the difference between men and women may evolve through time and among its members. For example, men and women are expected to behave in various

ways and wear distinct attire and haircuts; there are also separate societal standards that govern how men and women should interact with one another (e.g., Since males are superior to women, it is imperative that women should pay attention to male authority). "Gender stereotypes" refer to these social and cultural conventions regarding men and women's behaviours, roles, and relationships. They are used to discriminate between the sexes. According to a number of studies, gender stereotypes are used to imprison and constrain women in patriarchal nations by placing them in a lower social position and limiting their freedom and opportunity. To put it another way, gender is a manufactured category used to distinguish between men and women in society. It also varies throughout cultures and time periods.<sup>20</sup>

India is a patriarchal culture; thus, men and women follow various social and cultural norms. A male child's schooling often receives more attention from parents than a female child. As a result, parents are more likely to support a male child's desire to attend college outside of town than a female. As a result of the social expectation that women should keep their virginity until marriage, parents tend to be more rigorous when it comes to allowing their daughters to date or be friends with men. Also, if a woman is pursuing a higher degree, she should still learn how to do the tasks around the house. Males have more flexibility than females to reject their parents' decision in an arranged marriage, whilst females are often unable to do so. Due to socio-cultural expectations, it is possible for men and women to grow differently throughout the early stages of adulthood, despite human development literature indicating that they have identical developmental requirements. In India, for instance, it is thought that men will feel more at ease participating in activities that may help them find a romantic partner due to societal restraints and the assumption that women will not participate in such activities. Women and men use mobile phones in various ways, it is supposed.

As a result of these societal shifts, our research aims to better understand how today's disenfranchised college students may interact and build relationships with one another through the use of technology. Because of this, the suggested investigation's goals are as follows:

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<sup>20</sup> Smith, B. G. 2004. *Women's History in Global Perspective*. Urbana: University of Illinois Press, Volume 2.

- (a) To discover the general pattern of access and usage of mobile phones and the internet by the male and female marginalized college students in Malda district;
- (b) To discover the impact of mobile phones and the internet mainly, in education, social, cultural, and commercial aspects.
- (c) To understand the role of mobile phones and the internet as inhibitors or facilitators of communications, interactions, relationships, and social changes.

### **1.6 Description of the Chapters:**

Seven chapters are included in this dissertation. Mobile phones and internet culture are becoming more than simply tools for personal communication in developing nations such as Malda, West Bengal, in the first chapter of the thesis, which outlines the findings of the study. In this section, I also outline the research's purpose and scope.

In the second chapter, researchers from around the world examine data from surveys of young people's mobile phone usage. This study's theories are described in the conceptual framework. Information, knowledge, and communication are crucial to the growth of countries, communities, and individuals in today's 'post-industrial' or 'information society.' Studies of technology and society from a theoretical perspective offer an in-depth look at the role that technology plays in education.

To wrap up, in Chapter 3, I explore the current technology landscape and how it has contributed to the growth of a mobile and internet-based society. A look at how mobile phone technology has evolved from "Brick" phones to touch-screen smartphones, and how the internet came into being, as well as how mobile phone technology has expanded globally, is covered in this section.

The topic of marginalisation in India and the state of West Bengal will be the focus of the fourth chapter. I'd also want to clarify the followings in the Indian context here. It is my goal to better understand marginalised communities in India, particularly in the state of West Bengal, as well as to identify the factors that contribute to their plight.

The fifth chapter of my thesis focuses on the methodology and data analysis of my research. First, I'm outlining my research questions and hypotheses in this section. I'll explain how I do my study, including sampling, scheduling, interviews,

observation, and data collecting. I next describe the interviewers and then present my empirical data, which I used to draw conclusions.

The primary findings and qualitative analysis of the thesis form the basis of the six chapters. The effects of mobile phone and internet use on communication, social image, social media, privacy, and educational outcomes are also discussed here. Finally, health and behavioural benefits of mobile phone and internet use are also discussed.

It is in this seventh chapter, Steps of Indian Government, that the findings are presented, together with theoretical and practical consequences, the limits of the study, and future research prospects.

## *Chapter: 2*

### **Review of Literature and Theoretical Frame Work of the Thesis:**

To better understand the mobile phone and internet use patterns of economically disadvantaged students in Malda, this chapter reviews the literature on these topics among young people and gives examples of the conceptual framework and theoretical techniques employed in this research.

#### **2.1 The Review of the Relevant Literature:**

To show how the researcher's analysis fits into the greater area of study, researchers often write literature reviews to provide an overview of the sources through which research on a given issue has been investigated. Simply said, a literature review is a collection of works that provides a description, summary, and critical evaluation of significant academic papers, surveys, books, and other materials that pertain to a specific topic, field of study, or theoretical framework. It provides a synopsis of the existing works in the researcher's field of study.

This literature review furnishes academic studies and explores the general use of mobile phones and the internet among the young generation. Presently, researchers are now interested in the rising use of mobile phones, particularly among young people. There have been many surveys on mobile and internet usage nationally and internationally. The available literature reveals that mobile and the internet are used worldwide by college students for different purposes. However, the various studies included here are classified under the following heads:

- A. Change in Communication Methods
- B. Usage and Attitude Towards Mobile Phone and Internet
- C. Symptoms of problematic Mobile Phone and Internet use.
- D. Gender difference and the addition of Mobile Phone and Internet use.

#### **Change in Communication Methods:**

The widespread use of information and communication technologies (ICT) has far-reaching effects on how we teach and learn.<sup>21</sup> The mobile phone is the first and

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<sup>21</sup> Hill J. R. and Hannafin, M. J. 2001. Teaching and learning in digital environments: The resurgence of Resource-based learning. Educational Technology Research and Development, 49(3): P. 37–52.

foremost tool of ITC that can fly with users. Users can have conversations in real time (through voice) or in real time (via text) (text and e-mail). Using our mobile devices, we can instantly reach out to anyone, wherever in the globe. Researchers in the social sciences and the humanities have shown that mobile phones facilitate communication between people physically separated by great distances and facilitate the scheduling of in-person encounters between them.<sup>22</sup> Before the Internet and texting on mobile phones, people communicated primarily face to face, mailing letters, and calling friends over landlines. However, these days most of us would rather get in touch with one another via our various electronic gadgets, such as our phones and computers. But this kind of interaction lacks the tangible features of in-person conversation. Goggin, a sociologist, investigated at how mobile phones have influenced cultural and social shifts in modern society in his lengthy book "Cell Phone Culture".<sup>23</sup> By using mobile phones or any social media platforms, people can make last-minute plans and meet in person constantly in no time.<sup>24</sup> To fully grasp how mobile phones will alter human society, however, we need to investigate both the potential benefits and drawbacks of this technology.

Since the origin of mobile phones and social media in the late 2000s, several studies have been conducted regarding face-to-face communication and technology's effect on social interaction. New advancements in communication technology have made it easier for billions of people to connect worldwide. Several research studies have been conducted on how social media apps affect face-to-face communications.<sup>25</sup> A study shows that it interferes with mobile communication devices' companies in social settings. Multiple studies have shown that while phone calls are often private, they are considered public when made via a mobile phone or

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<sup>22</sup> Katz, J. E. & Sugiyama, S. 2005. Mobile Phones as Fashion Statements: The co-creation of mobile communication's public meaning, In R. Ling & P. Pederson (Eds.). *Mobile Communications: Re-negotiation of the social sphere*. Surrey, UK: Springer. p. 63 – 81.

<sup>23</sup> Goggin, G. 2006. *Cell Phone Culture: Mobile Technology in Everyday Life*. London: Routledge.

<sup>24</sup> Katz, J. E. 2006. *Mobile Communication and The Transformation of Daily Life: The Next Phase of Research on Mobiles*, Knowledge, Technology & Policy, the Centre for Mobile Communication Studies, Rutgers University, New Brunswick, USA, Vol- 19, Issue 1. P. 62–71.

<sup>25</sup> Dargo, E. 2015. *The Effect of Technology on Face-to-Face Communication*. Retrieved from <https://www.elon.edu/docs/eweb/academics/communications/research/vol6no1/02DragoEJSpring15.pdf>. P. 15-16. Accessed on 12/02/2014.

while surfing the web in some locations. The mobile phone is regarded as the most successful technology used by the masses in the past fifty years.<sup>26</sup>

Mobile phones and the internet in social settings may have beneficial and malignant effects. In 2006, educators and students in the Indian states of Punjab, Haryana, and Himachal Pradesh conducted an online survey. The survey was given to 1980 students and faculty members across the three engineering institutions in India. This research exhibits and expands upon numerous facets of internet use, including: internet use frequency; internet usage purpose; internet usage location; internet usage contentment; and internet usage satisfaction at the collegiate level. Researchers found that 46.7% of educators and 36.7% of pupils often access the web in the classroom. As time went on, it became clear that the majority of respondents relied heavily on the Internet in their academic endeavours.<sup>27</sup>

One further study of Orissa's engineering schools was done that year. Half of the engineering schools surveyed utilised a dial-up connection, according to the report. Many universities now provide lectures and other events completely online. Three hundred eighteen students at a private university in Hawaii were questioned to learn more about the role culture plays in the acceptance and use of mobile devices. Two hundred and thirty-one people (65 percent female, 35 percent male) from the United States, Hawaii, Taiwan, Sweden, and Japan were included in the analysis. In the study, we asked about people's thoughts and sentiments about using their mobile phones in public, as well as how they put their phones to use for things like making a fashion or security statement, getting things done, sharing their innermost thoughts and feelings, and meeting practical needs. There were more commonalities in mobile phone use across cultures than variances, according to the results. Participants from all around the world have used their cell phones in similar ways as a fashion accessory. However, there were two major cultural differences in mobile phone use: (1) Japanese participants were less accepting of public cell phone use, and (2)

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<sup>26</sup> Humphreys, L. 2003. Mobile Phones, Japanese Youth, and the Re-placement of Social Contact. Retrieved from <http://www.jstor.org/stable/25460636>. Accessed on 12/02/2014.

<sup>27</sup> Kumar, R. and Kaur, A. 2006. Internet Use by Teachers and Students in Engineering Colleges of Punjab, Haryana and Himachal Pradesh: An Analysis. *Electronic Journal of Academic and Special Librarianship*, vol-7. Retrieved from [https://www.researchgate.net/publication/323666033\\_Internet\\_Use\\_by\\_Teachers\\_and\\_Students\\_in\\_Engineering\\_Colleges\\_of\\_Punjab\\_Haryana\\_and\\_Himachal\\_Pradesh\\_An\\_Analysis](https://www.researchgate.net/publication/323666033_Internet_Use_by_Teachers_and_Students_in_Engineering_Colleges_of_Punjab_Haryana_and_Himachal_Pradesh_An_Analysis). Accessed on 12/02/2014.

Swedish participants were less inclined to use mobile phones for safety/security reasons.

To further investigate the impact of social networks on mobile phone uptake and usage, another researcher in St. Petersburg, Russia, undertook in-depth semi-structured research with 14 cell phone users aged 19-30. Researchers found that using a mobile phone led to the formation of multiple separate dyads, which threw off the dynamics of the traditional Russian family unit. The results demonstrated the impact of social ties on cellular phone and communication habits. Couples had greater opportunities for social interaction, which fostered a deeper bond, but individuals spent less time with extended family, weakening the unit's foundation. Consequently, the individualization or customization of cell phones can significantly impact Russia more than elsewhere.<sup>28</sup>

### **Usage and Attitude Towards Mobile Phone and Internet:**

In advanced technological societies, mobile phones hold symbolic meaning. The mobile phone has become a communicative and informational device in recent iterations. Due to the convenience and portability of mobile Internet connectivity, smartphone users may take a mini-computer with them everywhere they go. People have the frequent urge to check for communication, seek out information, and direct their opinion to other people and worlds in their presence.<sup>29</sup> College students between the ages of 18 and 25 who took courses in different disciplines were surveyed by El-Gaydar, O. et al. to evaluate their attitudes toward and use of technology (including their smartphones and laptops), as well as their expectations regarding performance, behaviour, social influence, ease of participation, and the perceived difficulty of completing assignments. The results indicated that individual attitudes toward the technology itself mainly influenced the utilization and acceptance of this new technology in the students' studies.<sup>30</sup>

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<sup>28</sup>Lonkila, G. & Gladarev, M. 2008. Social Networks and Cellophane Use in Russia: Local Consequences of Global Communication Technology. *New media & society*. SAGE Publications, Los Angeles, London, New Delhi and Singapore, Vol (2). P. 339–359.

<sup>29</sup>Michael. C. 2011. *So Much, So Fast, So Little Time: Coming to Terms with Rapid Change and its Consequences*. Santa Barbara, Denver, & Oxford: Praeger.

<sup>30</sup>El-Gayar, O. et al. 2011. Students Acceptance of Tablet PCs and Implications for Educational Institutions. *Educational Technology & Society*. Vol 14, Issue 2. P. 58-70.

College students' handling of the internet and other forms of information and communication technology is examined by Sinha, M. K. et al. Users' Internet use was found to have an impact on classroom activities, research projects, laboratory activities, and written and spoken presentations. Studies of this nature revealed that modern students viewed the internet as a great resource for finding the data required by scholars and scientists. Academic library patrons were strongly encouraged to participate in the training sessions suggested by the study's authors. Then students would be able to make better use of the web for research and class work. Most of the students tried to stay current by visiting the library, but they were unable to get the resources they needed. For young inquisitive minds, the internet can be a gold mine of information. It was also discovered that students were drawn to the internet because of the ease with which they could get information on any subject. Most students complain about the internet's poor speed and sluggish performance.<sup>31</sup> The study by Suri, G. and Sharma, S. shows that internet use has a major effect on respondents, whereas respondents' opinions about e-learning had little bearing on their own internet habits. The vast majority of respondents are keen on gaining computer skills and have a favourable impression of online education.<sup>32</sup>

According to studies conducted by Jain, N. et al., almost all Indian engineering students regularly access the internet. The internet is often viewed as a useful resource for students' academic pursuits. They would rather use the internet to read and study than actual books. Many researchers rely on online resources to help them feel more at ease while writing and presenting their findings. Scientists keep an eye out for signs that too much time online contributes to interpersonal difficulties. Students' reluctance to interact in person because of their heavy internet use is understandable. They claim that students' social behaviour is severely impacted by their time spent online, despite the internet's beneficial effect on their academic performance. Student internet use in India across disciplines was studied by Loan, F. A., and found to include research,

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<sup>31</sup> Sinha, M. K. et al. 2013. A Study on ICT Literacy and Internet Use Pattern among College Library Users of Bark Valley, South Assam North East India. *Current Trends in Technology and Science*. Volume: 2, Issue 5. P. 301-316.

<sup>32</sup> Suri, G. and Sharma, S. 2012. Impact of Age and Internet Access and Usage on Student's Attitude Towards E-learning: A Study on Punjab university. *International Journal of Applied Services Marketing Perspectives*. Vol- 1, P. 188-194.

learning, leisure, and interpersonal interaction. However, most students rely on the internet for socialising, education, and communication.

Students' internet usage patterns vary widely. While some students may only log in twice or three times a week, the vast majority utilise it at least once or twice each day. There were issues with student internet use across the board. Data overload prevented some students from accessing relevant and accurate information, while others experienced difficulties with connection speed, language barriers, file downloads, etc.<sup>33</sup>

Challa, N. & Madras, V. research in India concluded that most medical students were not using the internet to learn new things. Instead of learning about their subjects, most students use the internet for entertainment purposes including listening to music, playing video games, watching movies, and connecting with friends on social networking sites. The study's author also suggested that the web's potential future impact on the medical field merits serious consideration. In order to help students, make the most of it for their future and education, careful attention must be paid to guiding their use of it. They also argued that all medical schools should use computers to educate students how to effectively use the Internet as a research tool.<sup>34</sup>

Researchers Lajwanti and Sharma from A. P. did not find any substantial differences between internet users and non-users with regards to their study habits or ability to adapt to new environments in this study, we found no evidence that students' homework habits, grades, or coping techniques were affected by their exposure to sex, punishment, or internet use/non-use. The study concluded that non-internet users (who made up 99 percent of the sample) fared better than internet users (who made up 1 percent of the sample) on every measure of adjustment. They found no evidence to support the idea that students' adjustment was unaffected by whether or not they used

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<sup>33</sup> Loan, F. A. 2011. Internet use by College Students Across Disciplines: A Study. *Annals of library and information study*. Vol- 58. P. 118-127.

<sup>34</sup>Challa, N. & Madras, V. 2014. Attitude, Awareness and Usage Skills of Computer and Internet among Medical Students. *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*. Volume 13, Issue 5, P. 24-27.

the internet. Students in the arts were found to have poor adjustment, while those in the sciences performed around average.<sup>35</sup>

Koovakkai, D. & Muhammed, P. Researchers in India revealed that adolescents used the internet to download obscene shears, pictures, pornography, manipulate information, and send unwanted messages to each other in rural areas. The significant objectives of internet use were entertainment and having fun. Teens in urban and rural areas have different levels of familiarity with online privacy and safety regulations. Knowledge levels were found to be lower in rural children compared to their urban counterparts. Most students used material found on the internet when doing their homework and assignments. Internet abuse was found to be more prevalent among rural adolescents compared to their urban counterparts because rural kids were found to be more apathetic and less aware of the significance of the concerns. Because of their naiveté and lack of experience, they frequently engage in such behaviour. The study focussed on the need of teaching teenagers about the potential pitfalls of online activities. Again, teenage internet use was adequate, but they lacked a solid foundation of knowledge and awareness of cybercrime. They were oblivious to issues of privacy and plagiarism. Students saw obscene videos on YouTube and other sites, according to the survey, but many avoided doing so at home because of parental concerns. Most students were worried about getting in trouble with the law for engaging in illicit online activity. The researcher wished that pupils would have prior knowledge of cybercrime. This will help kids learn to be responsible members of society while also raising awareness of the dangers of cybercrime.<sup>36</sup>

According to Mahajan P.'s study, kids' attitudes about schoolwork were significantly impacted by the widespread availability of the Internet. Students in the science departments accounted for 100% of campus Internet usage. Students in the humanities and social sciences often saw the university library as a last resort when conducting research. Nearly 90% of students in the poll said they would rather use the

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<sup>35</sup>Lajwanti and Sharma, A. P. 2013. Effect of Internet Use on Study Habits and Adjustment of Higher Secondary Students. *International Journal of Educational Research and Technology*. IJERT: Vol 4(1). P. 52 -59.

<sup>36</sup>Halder, D. and K.Karuppannan, J. 2013. Use and Misuse of Internet by Semi-Urban and Rural Youth in India, A Baseline Survey Report". Centre for Cyber Victim Counselling. Retrieved from URL: <http://www.cybervictims.org>. Accessed on 12/02/2014.

Internet than a library for their research. In contrast, humanities and social sciences students used the library more than the internet.<sup>37</sup>

Faculty and graduate research assistants utilise the internet for a variety of reasons, including accessing electronic journals, communicating via email, collaborating on projects, etc., as reported by Parameshwar S. and Patil, D. They were unaware of the benefits of the internet for technical reports, electronic publications, and thus they did not use it for these purposes. Google was by far the most popular search engine used by students to gather research materials. Furthermore, there were issues with slow speeds, downloading, having too much information, and getting false information. Advocates for wider dissemination of research published in digital formats such as journals, theses, and technical reports.<sup>38</sup>

The research conducted by Lal, P. R. revealed that both postgraduate (PG) and graduate (M. Phil.) students made use of the internet for academic reasons. Conversely, most undergraduates spent their time online for leisure and socialising. Students universally complained about the service's sluggish data transmission rates. Students were also found to be aware of the internet cafe's existence (90.6 percent), but not particularly interested in using it. Due to a lack of institutional access, engineering students in India were found to spend much more time online than their non-engineering peers, according to a survey conducted by Kochhar S. et al. To make the most of online materials, pupils needed access to the internet, background knowledge, and computer literacy. Many students said they had trouble locating the information they needed on the web and that they preferred to utilise it at home. The vast majority of students surveyed reported using the internet for social media (Facebook, WhatsApp, etc.) and electronic mail. Fewer students favoured using the internet to get answers to their academic questions, although many respondents said they did use the internet to get electronic books for class.<sup>39</sup> A vital relationship was demonstrated between internet usage between gender and among several professional students.

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<sup>37</sup> Mahajan, P. 2006. Internet Use by Researchers: A Study of Punjab University. Chandigarh, Library Philosophy and Practice. Vol. 8, No. 2.

<sup>38</sup> Parameshwar, S. and Patil, D. 2009. Use of the Internet by Faculty and Research Scholars at Gulbarga University Library. Library Philosophy and Practice.

<sup>39</sup> Kochhar, S. et al. 2013. Knowledge and Usage of Internet among different professional students in India. Universal Journal of Education and General Studies. (ISSN: 2277-0984), Vol. 2(7). P. 233-238.

## Symptoms of problematic Mobile Phone and Internet use:

Technological addictions include intense human-machine experiences when people grow reliant on the system to dispel or exacerbate melancholic condition or good outcomes.<sup>40</sup> Adolescents' lifestyles are influenced by the internet. Daily life, living standards, sleeping patterns, eating habits, social ties, interpersonal relationships, and communication were all changed by the internet. Internet addiction has a negative impact on a student's life. Online addiction, smartphone addiction, internet addiction disease, digital addictive personality, internet reliance, addictive social media use, internet overuse, and compulsive internet use are all phrases used to characterise problematic internet use.<sup>41,42,43</sup>

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<sup>40</sup> Shaffer, H. J. 1996. Understanding The Means and Objects of Addiction: Technology, The Internet and Gambling. *Journal of Gambling Studies*. Vol- 12, Issue 4, P. 461–469.

<sup>41</sup> The term "INTERNET ADDICTION" was proposed by Dr Ivan Goldberg in 1996 for pathological compulsive internet use. Retrieved from <http://www.indianjpsychiatry.org/article.asp?issn=0019-5545;year=2013;volume=55;issue=2;spage=140;epage=143;aulast=goel;type=3>. Accessed on 13/02/2014.

<sup>42</sup> The term was once limited to drugs or substances, but it is now also applied to gambling, Internet, gaming, mobile-phone usage, and other behavioural addictions. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3354400>. Accessed on 13/02/2014.

<sup>43</sup> Internet Addiction is a broad term covering a wide variety of behaviours and impulse-control problems. It is important to understand that there are five specific types of Internet addiction. Cash, H. et al. 2012. Internet Addiction: A Brief Summary of Research and Practice. **Published online**. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3480687>. Accessed on 13/02/2014.

1. **Cyber sexual Addiction:** Individuals who suffer from Cybersex/Internet pornography addiction are typically engaged in viewing, downloading, and trading online pornography or involved in adult fantasy role-play chat rooms. Retrieved from [https://www.researchgate.net/publication/240282545\\_Internet\\_Sex\\_AddictionRisk\\_Factors\\_Stages\\_of\\_Development\\_and\\_Treatment](https://www.researchgate.net/publication/240282545_Internet_Sex_AddictionRisk_Factors_Stages_of_Development_and_Treatment). Accessed on 18/02/2014.
2. **Cyber-relationship Addiction:** Individuals suffering from an addiction to chat rooms, IM, or social networking sites become over-involved in online relationships or may become involved in virtual adultery. Virtual friends also become more important to the person, at the cost of real-life relationships with friends and family. This can lead to marital strife and family dysfunction in certain cases. Retrieved from <http://www.askmikethecounselor2.com/internet-addiction-treatment.html>. Accessed on 18/02/2014.
3. **Net Compulsions:** Post-Internet Age addictions to online gaming, online gambling, and eBay are increasingly becoming new mental disorders. With instant access to virtual casinos, interactive games, and eBay, addicts are losing excessive amounts of money and even disrupting other job-related duties or important relations. Retrieved from <https://www.netlingo.com/word/internet-addiction.php>. Accessed on 18/02/2014.
4. **Information Overload:** The wealth of data on the World Wide Web has created a new type of compulsive behaviour regarding excessive web surfing and searching for databases. Individuals can spend more time searching and gathering web-based data and organizing information. This behaviour is usually associated with obsessive-compulsive behaviours and

K. Vidyachathoth and colleagues conducted research. Excessive internet use was discovered to be developing as a serious harmful effect among children and teenagers. They were the ones who were most at danger from the rise in problematic internet use. Academic performance, a lack of time, boredom, and hobbies were all linked to internet addiction. Medical students proved to be a category of special concern among the other student categories because they expended additional time on the web. The research also found a substantial link between the amounts of hours spent on the internet each day and the adverse effect score. Frequent internet use and spending a substantial time online may be a way to alleviate to decrease withdrawal-related stress.<sup>44</sup> The cell phone, according to the study group of Chambréthe R. et al., has become the symbol of the twenty-first century. Mobile phone use was classified as obsessive, addictive, and habitual in their study, making it the most complete non-drug addiction of the twenty-first century. According to the findings, university students are among the most frequent users of mobile devices.<sup>45</sup>

Research published as early as 2005 by Bianchi, A. and Phillips, J. suggested difficulties with mobile phone use might be symptomatic of a lack of impulse control or depressed mood. Their research looked at both the root cause and the consequences of excessive cell phone use. They predicted mobile phone addiction using a number of dependent factors, including self-reported weekly mobile phone usage, self-reported proportion of socially based service, self-reported rate of use for business, etc. The percentage of reported use for additional features was one of the additional factors taken into account. Based on the findings, technological dependency is a reasonable place to begin thinking about issues related to mobile phone use. The findings also

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decreased job efficiency. Retrieved from <https://www.healthyplace.com/addictions/center-for-internet-addiction-recovery/what-is-internet-addiction>. Accessed on 18/02/2014.

5. **Computer Addiction:** Computer games such as Solitaire and Minesweeper were programmed into computers in the 80s and researchers noticed that repetitive play of video games was problematic in organizational environments as workers spent most days playing instead of working. These are not social sports, nor are they played online. Retrieved from <https://www.healthyplace.com/addictions/center-for-internet-addiction-recovery/what-is-internet-addiction>. Accessed on 19/02/2014.

<sup>44</sup>Vidyachathoth, K. et al. 2014. *Correlation between Affect and Internet Addiction in Undergraduate Medical Students in Mangalore*. Addiction Research & Therapy. Retrieved from <https://www.omicsonline.org/open-access/correlation-between-affect-and-internet-addiction-in-undergraduate-medical-students-in-mangalore-2155-6105.1000175.pdf>. Accessed on 02/01/2016.

<sup>45</sup>Shambare, R. et al. 2012. Are Mobile Phones The 21st Century Addiction? African Journal of Business Management. Vol 6(2), P. 573-577.

suggest that young individuals are more vulnerable to heavy and problematic substance use. Too much time is spent texting and using other mobile phone functions.<sup>46</sup>

Researchers in Australia found that university students there spend anywhere from 1.5 hours per day to 5 hours per day using their cell phones. The results demonstrated a number of factors associated with addictive usage. To name a few, they were impulsivity, heightened anxiety just before using the device, the ineffectiveness of various attempts at self-control, and the onset of withdrawal. The findings also indicated that there are elements linked to consumers' participation in addictive or compulsive behaviour. Excessive usage can be affected by a variety of conditions, such as social gatherings, alcohol consumption, and emotional distress.<sup>47</sup>

According to research conducted by James, D. and Drennan, J., college and university students who believe they are addicted to texting have a variety of psychological and behavioural symptoms. Self-reported measures of text message dependence, text message frequency, and psychological and behavioural symptoms were analysed. Perceived emotional reaction, excessive use, and relationship maintenance were the three components of perceived text message reliance.<sup>48</sup> Researchers Hooper, V., and Zhou, Y., discovered a wide range of mobile-related behaviours among college students. There are six possible manifestations based on identified drivers. The words "addictive," "mandatory," "compulsive," "dependent," "habitual," and "voluntary" all apply to these. These classifications were put to the test via a survey. Research showed that whereas compulsive usage was quite important, addictive use was the lowest. Furthermore, the findings demonstrated that mobile phone use is more appropriately classified as compulsory, optional, or reliant than as frequent, addicted, or compulsive.<sup>49</sup>

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<sup>46</sup> Bianchi, A. and Phillips, J. 2005. Psychological Predictors of Problem Mobile Phone Use. *Cyber Psychology and Behavior*. Vol 8(1). P. 39-51.

<sup>47</sup> James, D. and Drennn, J. 2005. Exploring Addictive Consumption of Mobile Phone. A paper presented at the ANZMAC Conference: Electronic Marketing, *Journal of Adolescence*. Vol 27(1). P. 87-96.

<sup>48</sup> Igarashi, T. et al. 2008. No Mobile, No Life: Self-Perception and Text-Message Dependency among Japanese High School Students. *Computers in Human Behavior*. Vol 24, Issue 5, P. 2311-2324.

<sup>49</sup> Hooper, V. and Zhou, Y. 2007. Addictive, Dependent, Compulsive? A Research of Mobile Phone Use. A paper presented at the 20th Bled e-Conference e-Mergence: Merging and Emerging Technologies, Processes and Institutions, Bled, Slovenia. Retrieved from

Ahmed, I. et al. (2011) conducted study in Pakistan to determine the level of mobile phone addiction among the students of college. The majority of students, the findings showed, were able to establish clear priorities among their many obligations, duties, and cell phone use. The findings also revealed that only a small percentage of pupils had highly addicted behaviours. They came to the conclusion that college kids utilised their phones responsibly and didn't engage in any risky behaviours that may lead to mobile phone addiction.<sup>50</sup>

The internet, according to Nalwa, K. and Anand, A. P., has become an addictive medium for students. The Davis Online Cognition Scale (DOCS) was employed by the researchers to evaluate students' problematic internet behaviour. Two groups were made based on total scores gathered from 100 respondents: non-dependents and dependents, respectively. The research shows that the distinctions between the two groups may be put to good behavioural and practical advantage. The reliant group discovered that their internet activities were delaying their job and causing them to lose sleep. A small number of respondents said that they would find life without the Internet to be uninteresting. The dependents spent significantly more time online than the controls. In terms of feelings of isolation, those who rely on others scored higher than those who did not.<sup>51</sup> It was discovered that internet addicts are different from the general population in that they prefer to use the internet late at night and early in the morning. Access to the internet was also found to vary, based on the results. Finding no correlation between daily usage and addiction levels was another major finding from the study. Internet addicts frequently spent more time online than they had budgeted for. Addicts who spent excessive time on the Internet had symptoms of poor mental and physical health.<sup>52</sup>

Studies by Guan, S. S. A., and Subrahmanyam, K. show that cyberbullying, sexual solicitation, and internet addiction are real problems among young people. They insisted it was crucial to remember that not every kid was in the same precarious

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<https://pdfs.semanticscholar.org/42c2/42742d84f0c76a64a709e9203c2dbf4846d7.pdf>. Accessed on 12/02/2014.

<sup>50</sup> Ahmed, I. et al. 2011. An Investigation Of Mobile Phone Consumption Patterns Among Students And Professionals; Is There Any Difference? *European Journal of Economics, Finance and Administrative Sciences*. Vol 39. P.136-143.

<sup>51</sup> Nalwa, K. and Anand A. P. 2003. Internet Addiction in Students: A Cause of Concern. *Cyberpsychology Behaviour*. Vol 6, issue 6. P. 653-656.

<sup>52</sup> Goel, D. et al. 2013. A Study on The Prevalence of Internet Addiction and its Association With Psychopathology in Indian Adolescents. *Indian Journal of Psychiatry*. Vol 55, Issue 2, P. 140-143.

position. To develop efficient solutions, further research into risk and reward was required. Internet use may promote growth in all three areas of development (social, physical, and mental). It was clear, then, that the Internet posed both benefits and threats to the youth of today. They suggested studying which young people were most vulnerable to online bullying, addiction, and solicitation in order to better tailor preventative measures. They argued that the Internet might be utilised to enhance youth education and leadership development because to its many useful aspects.<sup>53</sup>

### **Gender and the addiction to Mobile Phone and Internet use:**

The majority of chronic internet users, as opposed to occasional users, log on later in the day. Moreover, the results demonstrated that internet accessibility is not uniform. Teenage boys and girls use their phones differently when it comes to both problematic and impulse use. Men are more dependent on their phones than women are, and they use them more frequently in risky situations. Men are much more interested in having their feelings validated and less likely to stick with a task, whereas women often provide compelling accounts of times when they felt compelled to act quickly.<sup>54</sup>

Gender was shown to be associated with mobile phone use, according to research by Walsh, S.P. et al. Several social scientists looked at the opinions and attitudes of mobile phone users across the gender spectrum. They concluded that whereas females had overwhelmingly favourable opinions of the service, males had a negative bias toward it overall, regardless of the setting.<sup>55</sup> Research by Hakama, M., and Hakoyama, S. reveals significant disparities in mobile phone use based on gender. Their research revealed that females, and particularly white females, are more likely to rely heavily on their mobile devices to keep in touch with friends and family.<sup>56</sup> According to research conducted by Pawowska, B. and Potembska, E., there is a strong correlation between these factors and continuing friendships with peers.

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<sup>53</sup> Guan, S. S. A. and Subrahmanyam. K. 2009. Youth Internet use: Risks and Opportunities. *Curr Opin Psychiatry*. Vol 22, Issue 4, P. 351-356. Retrieved from <https://www.ncbi.nlm.nih.gov/pubmed/19387347>. Accessed on 12/02/2014.

<sup>54</sup> Billieux, J. et al. 2008. The Role of Impulsivity in Actual and Problematic Use of the Mobile Phone. *Applied Cognitive Psychology*. Vol. 22. P. 1195–1210.

<sup>55</sup> Walsh, S. P. et al. 2011. Keeping In Constant Touch: The Predictors Of Young Australians' Mobile Phone Involvement. *Computers in Human Behaviour*. Vol 27. P. 333–342.

<sup>56</sup> Hakama, M. and Hakoyama, S. 2011. The Impact of Cell Phone Use on Social Networking and Development among College Student. *The American Association of Behavioural and Social Sciences*. Vol 15. P. 1-20.

And then there were the sex variances in user motivation. Different studies show that women are more likely to use their phones than men are to satisfy their desire for closeness and approval, to maintain and grow their social contacts, and to communicate their feelings. In addition, women exhibited a more severe addiction to voice conversations and text messaging than males, who were more likely to use their phones for gaming, photography, music, video, and internet access.<sup>57</sup> According to studies conducted by Geser, H., women are more likely to adopt the usage of mobile phones than men are, and their monthly mobile phone expenses reflect this trend. However, the two sexes were found to have similar quantitative intensity of usage, despite their continued and striking differences in qualitative reasons and patterns of use. Women and men have consistently been proven to see mobile phones quite differently.<sup>58</sup>

Research by Perry, S., and Lee, K. shows no statistically significant difference in mobile phone use by gender. Male and female college students in the developing world do not differ in their propensity to engage in addictive behaviours, although women are less likely to utilise text messaging than men. Gender did not seem to be a reliable predictor of mobile phone usability problems, while women did tend to have more frequent issues. Admitting that women's addiction may be governed by their culture or ethnicity, they say that this may be the case. Gender inequality in the West is not as pervasive as it is in Asia and Japan, where women are implicitly expected to maintain traditional gender roles.<sup>59</sup> According to ThanuskodiS.'s findings, internet use is equally common between males and females. Equal access to the Internet was available to both boys and girls, but their online habits differed. Because of widespread usage of the internet in schools, the solution was the same for both

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<sup>57</sup>Pawłowska, B. and Potembska, E. 2011. Gender And Severity Of Symptoms Of Mobile Phone Addiction In Polish Gymnasium. Secondary School and University Students, *CurrProbl Psychiatry*. Vol 12 issue 4. P. 433-438.

<sup>58</sup>Geser, H. 2006. Are Girls (Even) More Addicted? Some Gender Patterns of Cell Phone Use. In: *Sociology in Switzerland: Sociology of the Mobile phone*. Online Publications, Retrieved from [http://socio.ch/mobile/t\\_geser3.pdf](http://socio.ch/mobile/t_geser3.pdf). Accessed on 05/06/2018.

<sup>59</sup>Perry, S. and Lee, K. 2007. Mobile Phone Text Messaging Overuse Among Developing World University Students. *Communication: South African Journal for Communication Theory and Research*. Vol 3, Issue 2, P. 63–79.

genders. At home, girls and boys utilised the internet in different ways because parents did not allow them equal access.<sup>60</sup>

It was observed in a 2014 survey conducted by Sharma, A. et al. among 391 university students in India that male students were more hooked to internet use than female students. Boys and girls alike logged an average of 1.29 hours each day online. Only 0.3% of students were severely dependent on the internet, while the rest exhibited mild, frequent, or moderate dependence. Students' difficulties, especially in their professional studies, were shown to rise with their internet use, according to the study's findings. Policy and practise aimed at reducing the risk of internet addiction promotes responsible and productive online use.<sup>61</sup> In 2008, Abu-Jedy A. conducted research into the relationship between mobile phone addiction and honesty among Jordanian college students. The study also looked at the reasons for the lengths of time spent on cell phones, as well as the personalities of addicted pupils. One quarter of a sample was found to have high levels of addiction. Addiction affects twice as many women as men, according to the study. Private university students have a substantially greater rate of internet addiction than their public university counterparts.<sup>62</sup>

## 2.2 Identifying Research Gaps:

The aforementioned studies demonstrate that mobile phone and internet usage among adolescents, teenagers, and young adults is a rising research issue among scholastic persons. These studies have looked at many cases regarding mobile phones and internet use by young adults and teenagers across the globe. Academic studies have shown, for instance, that young people's motives and requirements for acquiring and using mobile phones span the realms of communication, privacy, education, social image, and social media. Communication is important for a variety of reasons, such as in case of an emergency, for coordination and planning, for maintaining in

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<sup>60</sup>Thanuskodi, S. 2013. Gender Differences in Internet Usage among College Students: A Comparative Study. Library Philosophy and Practice (e-journal). Retrieved from <https://pdfs.semanticscholar.org/30d0/ca3173fb1906b5a37ac32d023c6ec0545605.pdf>. Accessed on 05/06/2018.

<sup>61</sup>Sharma, A. et al. 2014. Internet Addiction Among Professional Courses Students: A study from Central India. International Journal of Medical Science and Public Health.

<sup>62</sup>Abu-Jedy A. 2008. Mobile Phone Addiction and Its Relationship with Self-Disclosure Among Sample of Students from the University of Jordan and Amman Al-Ahliyya University. Jordan Journal of Educational Science. Vol 4, Issue 2. P. 137-50.

connection with parents and other family members, for making friends, and for general socialisation. Adolescents, teenagers, and young adults, especially in developing countries, use mobile phones and internet services to keep in touch with friends and acquaintances, foster romantic relationships, create online relationships, express themselves, keep their privacy, and live independently of their parents. The news, personal entertainment, and online commerce are only some of the media-related uses that have been found to be met by mobile phones and the internet, according to studies that have looked into these areas. However, only a small number of researches give data on the prevalence of mobile phone and internet use across India; these studies have all been limited to communities outside of West Bengal, and more specifically the Malda area. Republicanism and democracy coexist in India. Due to the diversity of local cultures, it is necessary to determine if there are regional variances in mobile phone and internet usage in India.

Therefore, it is important to look at how young adults across India use their mobile phones similarly. Again, no research is conducted among marginalized college students, youth, or groups for context by examining the use and impact of mobile phones and the internet in the Malda District. This study is designed to investigate mobile phones by marginalized college-going students in Malda district's 18 to 25 age group. Additionally, this study also shows that the patriarchal culture in West Bengal and India impacts males' and females' mobile phone and internet usage. This study also examines the gender differences among the 18 to 25 age group of marginalized college-going students in the Malda district.

## **2.3 Theoretical Frame Work of the Thesis**

### **A. Discussion on the Theoretical Background Part I:**

Deciphering information technologies, the study explores many of its aspects contributing to the confirmation of the modern social system. Information technology plays a master part in contemporary society, shaping and reshaping social communication and social relationships. This study replicates the entire idea in a small social group of graduate students in eleven colleges in the Malda district. The use of the internet and mobile phones examines how information technology shapes students' lives and to what extent it impacts the same.

### **i. Modern Societies as Networks:**

The convergence in the fragmentation of global change may be observed in the extensive use of information and communication technology in many areas of contemporary life, as argued by Manuel Castells in a series of novel and empirically based studies beginning in the 1980s. Thus, the advances in communication and information technology represent a major historical event and a profound upheaval in the material, cultural, and social structure of human civilization, on par with the industrial revolution of the 18th century. This research examines the impact on a vulnerable population in Malda district, West Bengal, from the perspective of those on the ground.

### **ii. Technological Determinism:**

Castell argues that a new technological framework and, by extension, a dynamic system powered by processing information or information are the origins of the new society or network society in which the authority keeps playing a critical role. To what extent does Castell's definition of a "network society," which relies heavily on various forms of electronic communication, differ from the more often used concept of a "information society"? The contrast between 'industry' and 'industrial' helps to explain the disparity between Castell's self-assessment and the theoretical paradigm of the information society. It may seem like such focused attention on differences is not productive at first. Castell suggests that there are two separate ways of looking at and learning from the world: through the lens of knowledge (society) and through the lens of knowledge (society) impacts. Sharing of knowledge, or "information" as he prefers to refer to it, is an anthropological constant present in all human civilizations and is thus implicit in his definition of "information." In contrast to the phrase "information," which refers to an abstract concept, the term "information" refers to a certain type of social organisation in which the production, storage, and dissemination of information serve as the primary mechanisms for achieving productivity and authority. 'Knowledge immediately becomes a productive force.'<sup>63</sup>

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<sup>63</sup>Stehr, N. 1994. Knowledge Societies. Sage Publications. P. 99-104.

Due to Castell's purposeful conflating of knowledge and information, as well as his close linkage of social theory with the development of ICT, it is difficult to discover any decisive and persistent differences between information and network culture ideas. Most people view the information revolution initially via a technical lens; in other words, they notice the devices but not the underlying shifts in socio-cognitive frameworks, instantaneous knowledge production, entitlement language, or scientific regimes.

### **The Productivity Paradox**

However, over the course of several decades, the United States' IT spending has come to represent an ever-increasing share of the country's total wealth. General spending throughout the time was consistent with historical levels. Corporations in the United States invested \$61 billion in hardware, \$18 billion in software, and \$75 billion in data processing and electronic services in 1990. (US Department of Commerce, 1991). There has been an increase in IT spending to the point that it accounts for more than half of all capital expenditures made by US businesses on equipment.

Nonetheless, the several approaches to the productivity conundrum illustrate the expanding and interdependent division of labour in social research, the very existence of which is hotly debated. The productivity paradox may not actually exist, according to some observers. The productivity conundrum can be explained as an artefact of measurement theory, or as a sign of incorrect production measurements that obscure true productivity advances. Machine investment is a small fraction of total capital output, therefore even if the mystery does arise, it won't be too big of a deal. While the paradox is real, many people see it as only a temporary setback, on par with the productivity loss caused by earlier technological shifts like the widespread use of electricity. It takes time for the economic gains to materialise, as is the case with other learning processes. Other commentators continue to view the productivity paradox as evidence of the intellectual or theoretical gaps in economic discourse rather than a gap reflecting actual realities. Finally, despite this point is already

debated, some economists have lately suggested that the threat is over and the productivity paradox vanished in 1991.<sup>64</sup>

People who support the "new economy" and who agree with Manuel Castell's assessment of current society say that it has undergone a radical shift. The proliferation of computers and the advent of digital technology had a profound impact on retailing. With the development of IT, our society has transitioned into a networked one. Castell says this is a better team than "information environment" because it captures the dramatic shift in how people interact with one another as a result of advances in information technology. In reality, Castell overstates the degree to which the digital generation differs from the more conventional (but waning) concept of current culture as a knowledge society. These two claims have premises that are reminiscent of technological determinism. In addition, both perspectives are insufficient because they don't address the profitability paradox adequately. The paradox of productivity can be better understood if three scientific findings are known. Prior to the development of IT, the emergence of a highly skilled labour force is first observed. Thirdly, information technology aids business owners and managers in keeping up with the rising labour costs suggested by this change in supply, which is not a reaction to the growing demand for highly qualified workers. Therefore, the efficiency paradox might shed light on the fact that the current shift from an industrial to a knowledge society is societally driven, rather than technology-driven. Castell's unique intensity of studying modern society extends to assumptions rather than its antecedents about the nature of the new modernity. In this research work, the stages of development in collecting responses would articulate the social networking originating from the same milieu. But Castell's work is narrowly concentrated on the organizational communication in the social system through the essence of community communication, and community relationships can be pictured with similar changes. But this study needs a strategically connected theoretical background.

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<sup>64</sup>Brynjo, I. and Hitt, P. 1996. Firm-level Evidence of High Returns to Information System Spending. *Management of Science*.

## **B. Discussion on the Theoretical Background Part II:**

### **i. The social implication of the Internet**

In this context, "Internet" refers to the global telecommunications and informational network that operates via the Internet and which enables instantaneous global communication and the instantaneous retrieval of vast amounts of data. In the late 1960s, a network dedicated to scientific and, beginning in 1975, military communication, was established; nevertheless, the Internet's meteoric rise did not begin until the advent of graphical user interfaces and the opening of the network to commercial interests in the early 1990s. Since 1995, when just 3% of Americans had ever used the Internet (Pew Research Center for People and the Press 1995), the number of online Americans has increased from 25 million to 83 million, with 55 million Americans going online on an average day in mid-2000. India was a bit slow to the party but quickly caught up. 2016 saw over 462 million Indians connect to the internet, making it the second most populous country in the world.<sup>65</sup> From less than 20,000 websites in 1995 to more than 10 million in 2000, holding more than two billion web pages, adding up to two million pages a day, the amount of information available on the World Wide Web has grown tremendously.

This chapter focuses on the potential for societal transformation brought about by the Internet. One of the benefits of doing research online is that it gives you a constantly shifting target. According to Agre (1998s), it is a "meta-medium," or a set of "layered services" that facilitates the creation of new media with virtually any desired attribute. When we talk about the Internet, we're referring to both the physical infrastructure (public TCP/IP networks and other large-scale networks like AOL) and the protocols that make such networks possible (World Wide Web, electronic mail, interactive multi-person online space). Our primary goal is to serve the general people. Following are examples of subjects that we do not routinely discuss: the use of technology in social science research and academic discourse; the larger theme of social backdrops and the consequences of computerization; and the usage of digital communication tools inside formal organisations. Numerous people have pointed out claims that the Internet is altering our culture. Given the relative youth of the new digital medium, it's not surprising that opinions vary widely about its benefits. Our

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<sup>65</sup>Popien, C. L. et al. 2018. Digital Marketplaces Unleashed. Springer. P. 842.

goal is to compile the findings of online social science studies and to get more sociologists involved in these studies. For the following three reasons, we argue that sociologists must study these topics. These are:

- Researchers have a once-in-a-lifetime chance, thanks to the medium's explosive expansion, to test ideas about the spread of new technologies and the effects of media at the formative stages of a medium's institutionalisation.
- The Internet stands out from other media because of the variety of formats it brings together. (Text, video, visual pictures, audio) onto a single platform. This adaptability lends credence to the idea that technology will play a role in a wide variety of future social networks.
- The technological and normative framework of the system will be set by certain decisions, such as the development of new technologies, the allocation of resources, the passage of legislation, and the implementation of new rules. Many of these choices are made on the basis of individual attitudes toward Internet use. We want those hypotheses to be more than just wild speculation.

## **ii. Notional context**

Various characteristics of electronic media are emphasised by the main theoretical traditions of Sociology. Durkheim argues that mediums that provide direct interaction between two people, such as telephones, contribute to the consolidation of society as a whole. As opposed to this, broadcast media like radio and television create powerful communal images.<sup>66</sup> Marxists prioritise media manipulation as a means of expanding the power of the ruling class in politics and economic growth through cultural hegemony and stricter control.<sup>67</sup> Weberian analysis of how point-to-point media facilitate rationalisation by lowering barriers imposed by time and location, while broadcast media supply such things as the ingredients of distinctive status cultures<sup>68</sup>. Some methods also provide insights into the digital media landscape. Technological determinists argue that the structural elements of new media lead to societal change because they facilitate novel modes of communication and the

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<sup>66</sup>Alexander, J. C. 1988. *Durkheimian Sociology: Cultural stud.* Columbia University Press, New York.

<sup>67</sup> Davis, J. H. et al. 1997. *Toward a Stewardship Theory of Management.* The Academy of Management Review. Vol. 22, No. 1. P. 20-47.

<sup>68</sup>Collins, R. 1979. *The Credential Society.* New York academies.

development of specialised knowledge and values.<sup>69</sup> In the 1960s, social science students proposed that industrial society must succumb to the "information age" in the face of new advances in communications technology. Theorists who take a critical stance question how new technologies will affect democratic discourse and the well-being of ordinary citizens.<sup>70,71</sup>

It appears that Daniel Bell is the first sociologist to focus on the societal effects of digital communication technologies in his own writing. Miniature electronic and optical circuits that can accelerate the flow of information through networks were one of two inventions that Bell predicted would have far-reaching social effects. The other was the eventual integration of computer processing and telecommunications into what Anton Oettinger called "data" technology. Bell predicted the policy challenges that widespread access to technologies like electronic mail and telefaxing, as well as automated newspaper and magazine delivery, would bring up, and he identified "the social organisation of the new communication system" as the most pressing concern for "the post-industrial society."

The digital information technology "provides the material basis" for "pervasive expansion" in every aspect of the social structure of what Manuel Castells called "the networking kind of organisation," he stated in a recent article. Castell believes that the impact of the Internet's ability to integrate print, oral, and audio-visual modalities into a single system will be comparable to that of the alphabet, ushering in novel forms of identity and inequality, redistributing power through decentralised channels, and generating novel models for social organisation. Like the other theoretical traditions, we have discussed, the detailed visions of Bell and Castells indicate several empirical questions that must be addressed to understand the effect of the Internet upon society. Concerns over power imbalances and unequal access to the new technology may be traced back to Marxism and Weberism. Because of the influence of Durkheimian thought, it is more attuned to the positive effects that new media have on building social capital and strengthening communities. The study of Habermas and Calhoun raises doubts about the potential of the Internet to alter the way government's function. Weberian thinkers have long pondered the implications

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<sup>69</sup>Eisenstein, E. L. 1979. *The printing press as an agent*. Cambridge University Press, Cambridge.

<sup>70</sup>Habermas, J. 1989. *Knowledge and Human Interest*. Beacon Press, Boston, U.S.A.

<sup>71</sup>Calhoun, C. 1998. *Classical Sociological Theory*. Wiley publication, New York, U.S.A.

of the Internet for political and economic structures. Important problems raised by critical theory pertain to the power of the Internet to regulate the creative and leisure industries. We summarise the findings of studies conducted by social scientists and other academics on these five themes. For the most part, there isn't much written about this work, and there are still a lot of unanswered questions. However, there is a trend: Even-handed prose pinned utopian expectations on the cutting edge of technology, prompting a nightmarish backlash. There are two conclusions that may be drawn from studies of both topics. In the first place, the Internet's sway is less all-pervasive than either utopian or dystopian views would have us believe. Second, the extent of that effect can vary depending on how the emerging Internet infrastructure is structured collectively by economic actors, government regulations, and users.

### **Community**

By decoupling community and geographical propensity, the Internet, in Wellman's view, has facilitated a societal transition from a group-based to a network-based society, which in turn necessitates a revised conceptualization and operationalization of the former.<sup>72</sup> In keeping with this understanding, Katz found that people who regularly use the Internet not only travel more but also have less acquaintances in their surrounding communities.<sup>73</sup>

Depending on one's perspective, the Internet may either be destructive to or beneficial to society and culture. To give just one example, Nie & Erbring argue that people who often report using email instead of the phone show a lack of "engagement with their social surroundings."<sup>74</sup> However, email and other forms of electronic communication may have greatly improved individuals' accumulated social capital. However, there is mounting evidence that online interactions deepen pre-existing social bonds and reinforce established patterns of behaviour. According to a recent poll of Internet users across the country, email has become an indispensable means of staying in touch with loved ones. This research adds to the call for further categorization of internet use and social capital. Women are less likely than males to

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<sup>72</sup> Wellman, B. 2001. Physical Place and Cyber-place: The rise of networked Individualism. *International Journal for Urban and Regional Research*.

<sup>73</sup> Katz, J. & Aakhus, M. (Eds.). 2002. *Perpetual Contact*. Cambridge: Cambridge University Press.

<sup>74</sup> Nie, N. H. et al. 2002. *Internet use, Interpersonal Relations and Sociability: A time Diary Study*. Blackwell, Oxford.

rely only on the internet as a means of social communication.<sup>75</sup> Similarly, Kraut et al(henceforth)'s longitudinal study indicated that internet use was associated with more frequent contact with familial ties and reported even closer friendships, especially among those who already had strong pre-internet social support networks.

When compared to traditional forms of mass communication, the Internet stands apart because it facilitates face-to-face interactions between individuals in virtual communities such as message boards and chat rooms. There is a wide variety of "online communities," from virtual communities that bring together strangers from all over the world who share a common interest to environments that foster ties among existing social networks (such as friends and family) to community networks that focus on geographically challenging neighbourhoods.'<sup>76</sup>

Since researchers can easily access full transcripts of talks and occurrences in early online communities like role-playing games (such as multi-user dungeons or MUDs and newsgroups), these settings remain appealing study venues. Such "online ethnography"<sup>77</sup> gave valuable insights into identity formation issues and the status and concerns of particular groups. But as the technology matures, web users engage in online games and newsgroups in ever lower percentages. Researchers are progressively following users into new online communities based on shared values or (physical) community networks.

While some research concentrates on "virtual" cultures, others investigate the internet's effect on regional societies. The necessity of studying online interactions in the context of offline daily life is exemplified by a study of a highly connected residential neighbourhood.<sup>78</sup> This showed that internet users sustain collective ties through face-to-face and computer-mediated contact. People who use the internet have more long-distance connections than those who don't, but they also know three times as many people in their immediate vicinity. Research of a parallel group showed

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<sup>75</sup> Howard, P. E. N. et. al. 2002. Days and nights on the Internet: The impact of a diffusing technology. Oxford: Blackwell.

<sup>76</sup>Smith, M. A. 1999. invisible Crowds in Cyberspace: Mapping the Social Structure of The Usenet. Communities in cyberspace, Routledge, London.

<sup>77</sup>Online ethnography is an online research method that adapts ethnographic methods to the study of the communities and cultures created through computer-mediated social interaction. Retrieved from <https://en.wikipedia.org/wiki/Cyber-ethnography>. Accessed on 15/02/2014.

<sup>78</sup> Hampton, K. N. & Wellman, B. 2000. Neighbouring in Neville: How The Internet Helps Connect People in A Wired Suburb. City and Community, in press.

that inhabitants utilise the Internet for "social-capital building activities." Still, that engagement and connection at the individual level of the community only increased for residents who are already very involved in the initiation of the experiment (Kavanaugh & Patterson forthcoming). Even while the internet facilitates long-distance connection, most email relationships are made between people who also communicate in person, according to a study of scholarly networks. In other words, the Internet is not replacing traditional ways of communication but rather serving to strengthen existing bonds among communities.

Sociology has been reluctant to exploit the rare opportunity to study the advent of potentially transformative technology in different circumstances. Non-academic survey organizations have performed too much primary research, producing theoretically unmotivated explanations and, at worst, technologically inaccurate and proprietary data. The relatively small field of sociology that studies the Internet has focused disproportionately on virtual communities, which is a worthy topic but not the only one in this area, so we need to develop explanatory models that differentiate between different modes of Internet usage and that directly link behaviour to social behaviour.

Work has also suffered from a disproportionate focus by individuals, which indirectly shows the very nature of the internet as a set. This is unfortunate as the character and consequences of this protean technology will represent the outcome of ongoing conflicts between powerful economic and political actors. Some sociologists do essential work, but an excellent opportunity to build and test social and technological change theories may go unexploited unless their numbers grow. Recognizing the shortcomings in earlier research programs, this study investigates facts and discusses the empirical data obtained from the selected region. This research program has the substance to it.

If the internet is a laboratory for sociology, then policymakers require sociology to shed light on the social decisions that form the future of the Internet. As Philip Agre has written, internet conversations are often less driven by constructive information than by the misconceptions and ideas of the cultural system that our culture is imposing on technology. The social sciences remain the best chance of substitution.

### **C. Discussion on the Theoretical Background Part III:**

#### **i) The Structure and Function of Communication in Society**

"The secret to social shaping technology (SST) is the concept that choices (albeit not always purposeful decisions) are inherent in the design of individual products and systems, as well as in the direction or trajectory of innovation programmes," Robin A. Williams and David Edge (1996) write. When technology fails to reveal a preset notion or a single characteristic, innovation becomes a garden of forking paths. There are several options that might result in various technical developments. Additional ramifications for society and certain socioeconomic strata may result from such choices.

The social construction of technology framework by Pinch and Bijker, actor-network theory by Callon and Latour, and the system dynamics model by MacKenzie and Wajcman all arose in the 1980s, with SST being one of the technology models: the interaction of society. Both the linear innovation paradigm and technological determinism are targets of criticism in these. In contrast to this, it places more emphasis on how the societal and technological contexts of development drive innovative decisions. However, SST is critical of technological determinism, the view that technology proceeds along its growth path regardless of human influences and, in effect, capabilities. Therefore, social shaping theorists view technology and society as mutually shaping one other.

Various versions of this idea assert that technological advancements have social effects via capabilities, constraints, requisites, and unexpected outcomes.<sup>79</sup> The concept of "affordance" describes the ways in which modern technology makes some activities easier for us to carry out, while "constraints" pose obstacles to our progress. Technology's preconditions are the skills and resources vital to making full use of the technology. Last, technology's unintended consequences are unforeseen effects and technology's impact. The cell phone is an example of technology being influenced socially.<sup>80</sup> Over the years, the cell phone has developed to make our lives easier by providing people with handheld computers capable of answering calls, responding to

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<sup>79</sup>Baym, N. 2015. Personal Communication in The Digital Age. Polity Press, New York.

<sup>80</sup> Zulto, J. 2009. Social Shaping of Technology. Retrieved from <https://www.slideshare.net/Zulto/social-shaping-of-technology>. Accessed on 20/05/2014.

emails, searching for information, and completing various other activities.<sup>81</sup> It has limitations on those who aren't technically competent, hampering other people in society who don't understand how to use these tools. There are preconditions, for example, monthly bills and power connections. Unintentional disruption is only one example of the many unforeseen repercussions that affect a wide range of people.

According to SST, technology affects society and technology through economics, politics, and culture.<sup>82</sup> Economics, government regulations that have made it reasonably easy for cell phone companies to build networks (politics), and the small size of cell phones that easily fit into the mobile communication needs of many cultures have all contributed to the rapid spread of cell phones in developing countries.

Everything, in both the social and natural realms, occurs in dynamic relational networks, according to Actor-Network Theory (ANT), an analytical and theoretical approach to social theory. To put it another way, the implication is that everything exists inside those connections. At this stage, all of the variables in a social setting are at the same place. Therefore, there are no external social influences beyond what and how the participants in the network are communicating. Thus, in creating social circumstances like humans, artifacts, concepts, processes, and other relevant factors are necessary. ANT argues that there are no social forces and cannot explain social phenomena. Alternatively, purely empirical research should be carried out to 'describe 'social activity rather than' explain.'<sup>83</sup> After this, the theory of social forces can be applied as an abstract theoretical concept. The core mission of ANT is to study how networks are planned, built, and maintained for practical use. In addition to its harsh critique of traditional and critical sociology, ANT is well-known for its contentious contention that non-humans may act or participate in systems or networks or both. It can be defined more scientifically as a "material-semiotic" process founded by science and technology studies (STS) scholars Bruno Latour and Michel Callon<sup>84</sup>, the sociologist John Law, and others. This means it simultaneously maps relationships

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<sup>81</sup> Ibid.

<sup>82</sup> Baym, N. K. 2015. Social Media and the Struggle for Society. Microsoft Research New England, USA, Vol. 1 Issue: 1.

<sup>83</sup> Carroll, N. et al. 2012. Service Science: An Actor-network Theory Approach. International Journal of Actor-Network Theory and Technological Innovation (IJANTTI). P. 51-69.

<sup>84</sup> Latour, B. 2005. Reassembling The Social: An Introduction to Actor-network Theory. Oxford university press.

that are both material (between things) and semiotic (between concepts). It takes for granted that many partnerships are both material and semiotic.

Many of the ideas central to French post-structuralism are reflected in ANT, including the emphasis on diverse material-semiotic interactions that do not require a common base. Nonetheless, it was more securely rooted in the scholarly practises of the English language than the majority of post-structuralist-influenced methods. Study of Science and Technology (predominantly English) was actively committed to theory creation through qualitative empirical case studies. Its ties are primarily based on technical structures that reflect its ability to consistently examine large-scale technological developments in a way that includes political, financial, legal, technical, and scientific considerations.

In the 1980s, researchers at the CSI pioneered a number of the core concepts of ANT, including translation, generalised symmetry, and the "heterogeneous network," as well as a scient ometry tool for mapping scientific and technological breakthroughs called co-word analysis. Latour's *Science in Action* (1987) provides a thorough description of the "state of the art" in ANT throughout the late 1980s.

From about 1990<sup>85</sup> onwards, ANT became famous as an analytical tool in various fields outside STS. Scholars picked up and developed it in organizational research, informatics, feminist studies, anthropology, geography, economics, health studies, sociology, since 2008, ANT has been seen as a vast array of material-semiotic approaches to the analysis of diverse interactions. It is perceived and used in various alternatives and sometimes in contradictory forms because of its popularity. Current ANT does not contain orthodoxy, and various writers apply the methodology significantly or differently. Many authors use "after-ANT" to allude to "successor projects" that combine many problem-focused approaches with ANT.

The scientific study of the communication process tends to focus on the following issues. A scholar who studies the communicators looks at the factors that initiate and guide the communication act. This branch of the study control analysis concentrates on the "Says that" participates in control analysis. Those who mainly look at the radio, news, film, and other communication channels can do media

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<sup>85</sup>Latour, B. 1987. *Science in Action: How to Follow Scientists and Engineers Through Society*. Milton Keynes: Open University Press.

analysis. Suppose we think about audience research when the main concern with the persons reached by the media; if the issue is the influence on viewers, then it becomes pretty difficult to analyse the results. Whether such distinctions are helpful depends entirely on the degree of refinement appropriate for a given scientific and managerial goal. Combining audience and affecting analysis, for example, is often simpler than keeping them apart. On the other hand, we may concentrate on the content analysis and subdivide the field into the study of meaning and style, the first referring to the message. The second refers to the arrangement of the elements from which the message is constructed.

### **Attention in World Society**

When we study the communication procedure of any state in human society, we note three unique categories. One group surveys the state's political environment as a whole, another correlates the whole state's response to the environment, and the third transmit specific patterns of response from old to young. Diplomats, attachments, and foreign correspondents represent those specializing in the background. Editors, journalists, and speakers co-realize the internal response; family and school/college/university educators transmit the social heritage. Communications originating outside the culture pass through sequences in which separate senders and receivers are interconnected. Messages originating with a diplomat or foreign correspondent move through editorial measures at each early point in the chain and eventually reach larger audiences subject to change. Socio-political environment and educational background thus ferment the structure of communication and therefore shape an individual's relationships as a member of a given community. Malda is a district that possesses a strong politically active background. People living here acknowledge the importance of community life and respect the heritage and old traditions. But with the advent of electronic advancement, people have started recognizing the power of modern gadgets.

#### **i. Social Conflict and Communication**

The role of communication is to provide information about what the other elite is doing. Intelligence channels fear the tendency to resort to secret surveillance. Thus, international spying in peacetime is intensified above its usual level. Moreover, efforts are made to "blackout" the self to counteract the scrutiny to establish contact

with audiences within the frontiers of the other power. Such diverse practices are embodied inaccessible and secret agents to scrutinize the other, counter-intelligence, surveillance and travel restrictions, broadcasting, and other cross-border communication activities.<sup>86</sup>

The communication process reveals unique characteristics in society when the ruling element is afraid of the internal and external environment. In gauging communication efficiency in any given context, it is necessary to consider the values at stake and the group's identity whose position is being examined. Rational choices in democratic sectors depend on enlightenment, and communication, particularly on the equivalence of attention among leaders and rank and file experts. This dissertation paper attempts to capture the factor affecting social models shaping the participants in promoting their beliefs, practice, and participation in the social whole.

#### **D. Discussion on the Theoretical Background Part IV**

##### **i. Online Virtual Communities as a New Form of Social Relations**

The widespread use of new information technology has facilitated a sea change in interpersonal dynamics and societal organisation. The logic of social relationships is shifting as a result of this transformation, and the new cybernetic culture's emphasis on "online" communication and reciprocity. People create "digital worlds" where the structures of interaction they construct with one another are not limited by the constraints of time and location. People build their own social networks online, connecting with others and cutting ties as they see fit. While the new forms of online communication lend reinforcement to the established standards of "solid culture," they also dilute these values in the sense of the "global a liquid society" alluded to by sociologists Bauman or Beck. As a result, this chapter's authors propose experimenting with new theoretical tools from the paradigms of cutting-edge technology sociology in order to analyse the new relational and cultural processes emerging in the cultural context of the global information society as a direct result of the expanded capabilities of modern means of communication. Concepts like "virtual community," "cyberculture," and "contacted individuality" will be dissected by the

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<sup>86</sup> Mansell, R. 2009. The Information society. UK: Routledge. P. 37- 45.

writers in order to determine their precise meanings and the relevance and individual behaviours that they sustain in the Internet society as a whole.<sup>87</sup>

This chapter has pointed out how the new information technologies are changing the conventional methods of communication and how they contribute to the immediate social climate. The traditional categories of analytics used by sociology to research the new systems of relations created in the information society are becoming obsolete. This chapter reviews and expands on a sociological notion used to describe the significance of the new "online" communication culture gadgets in shaping the nature of interpersonal connections, the nature of communication, and, ultimately, the social and symbolic organisation of groups of people.

Proponents of the "new economy" claim that the advent of the internet and advances in computing have ushered in a profound shift in the nature of human civilization. The massive expansion of computers and digital technology has significantly reorganized the business and economy. With the advent of information technology, a networking system was transformed. A rapid change in structure, affecting all its other related sections, has taken place. Too many people now seem to be inundated with the gap between the network society and the more developed notion of modern society as a knowledge society. Both ideas are based on assumptions that echo technological determinism. Both views are inadequate because they don't answer the efficiency problem sufficiently. The theory of profitability can be best understood if one understands a few empirical facts. Secondly, before information technology, highly tech-savvy participants arrive on the scene. Second, participants' growing value is not an answer to the demand but rather an autonomous change in the supply. And thirdly, information technology is helping enterprises and managing the new ideas for meeting demand and supply shifts.

As a result, the efficiency paradox may shed light on the fact that the shift from the industrial to the information society we are seeing is mostly the result of cultural shifts rather than technological advancements. Clearly, therefore, we are in a new era of progress. In order to fully grasp the essence of the new modernity, one must go beyond the historical roots of contemporary civilization.

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<sup>87</sup> Dasgupta, S. 2010. Social Computing: Concepts, Methodologies, Tools and Applications. Information Science Reference, New York, Vol.-4.

Sociology was sluggish to exploit the rare chance to investigate the genesis of potentially disruptive technologies. Non-academic survey organizations have performed too much primary research, producing theoretically unmotivated explanations and, at worst, technologically inaccurate and proprietary data. While virtual communities are certainly important, they are merely one aspect of Internet sociology. Furthermore, we need to construct explanatory models that differentiate between the many types of Internet use and that directly relate behaviour to the social and institutional context, as is the case with research into the effects of the Internet on inequality, politics, organisations, and culture.

A major problem in the field of study is the overemphasis on individuals, which implies a static view of the Internet. Unfortunately, the outcome of continuous fights between strong economic and political players will be reflected in the nature and impact of this protean technology. The institutional structure, industrial organisation, and political economy of the Internet have received little attention from sociologists. While many sociologists conduct important work, more are needed to take advantage of a unique window of opportunity to develop and test theories of social and technological transformation.

Policymakers need sociology to provide light on the social decisions that shape the future of the Internet, just as sociologists need the Web as a laboratory. Internet arguments, according to Philip Agre (1998:19), are often more influenced by "the cultural system of myths and ideas that our civilization imposes on technology" than by constructive awareness. Knowledge has been replaced by myth, but social science is still the best option for informing public dialogue on present situations and alternative approaches.

The contact mechanism shows unique characteristics of society when the governing factor is afraid of both the internal and external environments. In assessing communication effectiveness in any given context, the values at stake and the group's identity whose position is being examined must be considered. Rational choices in democratic sectors are based on enlightenment, which depends on communication, particularly on the equivalence of attention among leaders, experts, and rank and file. The sociological inquiry has always been keen to examine the individual's

relationship pattern in a given social system. Likewise, this paper also investigates a sector that has not been methodically explored.

In the final delve, this paper examines the youths from the marginalized community on mobile phones and the internet. The research further probes into the effects of mobile phones and the internet on their education, culture, and social structure. The entire Malda District has eleven General Undergraduate Colleges scattered through the corners. All of them would be covered, and a total of ninety-nine and twenty respondents are to be interviewed during the research project survey. The pattern of respondents has been articulated as comprising an equal number of Schedule Caste, Schedule Tribe, and Other Backward Community people. Also, the equivalent distribution of both gender is targeted.

## *Chapter: 3*

### **Technological Frame Work of the Thesis**

Information is sent through a process known as communication—the most critical aspect of human interaction for centuries. Elements of society such as individuals, families, states, and other organisations are held together by communication. Telephone interactions have evolved over the past hundred years and will continue to be an integral part of our lives. The “Smartphone Revolution” has fundamentally changed how personal contact occurs. The market has become even more competitive with the recent launch of Smartphones with cutting-edge technology. Nowadays, our smartphones are essentially an extension of us. After the pager messaging system in electronic communication, mobile cell phones were used for voice communication. Today, they are viewed as a joint and more developed means of communication, entertainment, and enrichment. The revolution in the information and communication division is making the world united. With the advent of new technologies, there is tremendous potential for growth in almost all industries, given that technology with the required human capital is utilised. In this situation, it is essential to know the exciting history of mobile and internet unique invention which has revolutionised our world.<sup>88</sup>

#### **3.1. Development of Mobile Cell Phones: A Journey from ‘Brick’ Mobiles to Touch Screen Smartphones**

In recent years, the mobile phone has evolved from a simple means of spoken communication to a multifaceted multimedia device. These days, most of us use our cell phones for things other than making phone calls, such as checking the internet, taking pictures, serving as a watch or a notepad, posting updates to social media, sending emails, etc. The growing number of apps, higher-quality displays, and regular updates to user interfaces have made mobile phones more functional and more pleasurable to use. A user-friendly interface, or "all in one," can replace many platforms. Smartphones have supplanted analogue timepieces and digital camcorders. The app market (or app store) has turned the smartphone into a versatile, all-purpose

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<sup>88</sup> Dr Rajgopal. 2009. Information Communication Technologies and Globalization of Retailing Applications. Information Science Preference, Hershey. New York. P. 226- 230.

gadget. If we want to understand and illustrate the development of cell phones, then we must analyse the following three points which are:

- The Precursory Steps for the Invention of Mobile Phone
- Past to Present History of Mobile Phone
- Various Generations of Mobile Technology
- The Precursory Steps for the Invention of Mobile Phone:

One of the first kinds of long-distance communication is the smoke signals that could only deliver a few simple messages such as signal danger and communicate news. After then, people replaced smoke signals for letter writing due to conveying lengthier messages and sending them further the distance, at least until the introduction of the telegraph<sup>89</sup> in the 19th century. The telegraph revolutionised long-distance communication in the 1830s and 1840s by Morse, and other innovators had created. Samuel Morse devised the first practical electromagnetic telegraph technique to encode text characters, today generally known as Morse code. Assigning dots and dashes to each letter of the English alphabet and enabling for the simple transmission of elaborate messages across telegraph lines (which functioned by transferring electrical impulses over the stations) established a standardised communication.<sup>90</sup>

After a few years, in 1843, an analytical chemist called Michael Faraday began researching the possibility of electrical conduction in space, marking the beginning of what would eventually become cell phones.<sup>91</sup> So, he looked into the possibility of transmitting electrical messages via the air, just like one would do with water or cables. This research allowed M. Faraday to develop a workable theory of electrochemistry.<sup>92</sup> In 1865, Dr Mahlon Loomis was the first person to successfully use wireless technology to send and receive messages through the environment. Kites

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<sup>89</sup> Code-translating devices and systems are those that enable long-distance, inter-site, wired transmission of information in the form of encoded signals. Retrieved from <https://www.history.com/topics/inventions/telegraph>. Accessed on 16/02/2016.

<sup>90</sup> Morse, F. B. Samuel. 1869. [Examination of the Telegraphic Apparatus and the Processes in Telegraphy](#). Philp & Solomons Booksellers, Washington.

<sup>91</sup> A conductor is anything or material that permits electrical current to pass through it, either in one direction or both. All metals are good conductors of electricity, however some are far more often utilised than others. Copper's strong conductivity has made it the standard in electrical wire since the telegraph's early days. Retrieved from [https://en.wikipedia.org/wiki/Electrical\\_conductor](https://en.wikipedia.org/wiki/Electrical_conductor). Accessed on 17/02/2016.

<sup>92</sup> Electrochemistry is the scientific field responsible for the development of rechargeable batteries like lithium-ion and metal hydride, which power today's mobile devices. Retrieved from [https://en.wikipedia.org/wiki/Lithium-ion\\_battery](https://en.wikipedia.org/wiki/Lithium-ion_battery). Accessed on 17/02/2016.

coated in copper screens, which were copper wires connected to the ground, were his brilliant concept for transmitting and receiving information over the air.<sup>93</sup>

In 1876 it was considered a landmark in marking the introduction of the telephone where the primitive system can relay voice has, opened up a new period of growth in communications history, replacing the telegraph. If we move forward to the twentieth century and the invention of the cell phone or the wireless phone as we know it today. Technology utilised in cellular communication and other similar contexts is built on advancements in radio technology beginning in the 1940s. It employs a platform variant that minimises the potential for interference amongst several users sharing the same frequency. However, the very first cell phones were no mobile phones at all. It was not radio technology but rather a telephone network-based system. Mobile phones may be traced back to developments in emergency vehicles like taxis and police cruisers.<sup>94</sup>

- **Past to Present History of Mobile Phone:**

D.H. Ring of Bell laboratories produced hexagonal mobile cells in 1947, which marked the beginning of modern cell phone technology. A later Bell Labs engineers conceptualised three-way cell towers. Previously, only two-way transmissions were possible. Electronic components needed in modern mobile phones were created in the 1960s. Phone calls were possible during these periods; however, going outside the cell area's limits would result in a dropped call because the cell areas consisted of only a few strategically placed base stations.<sup>95</sup> Freeing up additional spectrum for use by mobile phones, the FCC reversed course and allotted extra frequencies in 1968. After a few years, Martin Cooper was the man behind this tiny invention. Martin Cooper, then the general manager of Motorola's system division, is widely credited with inventing the modern portable handset and placing the first call on a portable mobile phone in 1973. It was a clear sign that the world would be globalised quickly, and the communication process in the upcoming century will

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<sup>93</sup> Theodore, S. et al. 1865. Wireless Personal Communications Trends and Challenges. [The Springer International Series in Engineering and Computer Science](#) book series (SECS, volume 262).

<sup>94</sup> Hamill, L. and Amparo L. 2005. Mobile World Past, Present, and Future. Springer.

<sup>95</sup> Farley, T. 2016. Telephone History Series. 15 19th Street West Sacramento, California 95691 USA. P. 7-11. Retrieved from <http://www.TelecomWriting.com/pcshistory.htm>. Accessed on 19/02/2016.

shape the whole universe. In 1977, AT&T and Bell Labs collaborated to build a prototype for a cellular network. After that, the first commercial cellular telecommunications network began service in Tokyo in 1979. In 1982, the introduction of analogue cell phone service began, and that continued until 1990.<sup>96</sup>

The capabilities of mobile phones continue to advance at a rapid pace. It's hard to believe that mobile phones in 1995 were as bulky as they are now and featured lengthy antennas that protruded from the top of the device. 1996 marked the beginning of the miniaturisation and simplification of mobile phones, culminating in 1997 with the removal of the extended antenna from mobile devices. The year 1998 witnessed the introduction of mobile phones in various colours. As time passed, businesses improved on the visuals, but the primary craze was the first touch screen mobile phone. It wasn't particularly sophisticated, but it had a touch screen, marking the beginning of the introduction of some exciting new technologies.<sup>97</sup> The year 2001 marked the debut of the world's first monochromatic display for a mobile phone, and with it came the end of the drab black presentations that were previously in use. Between 2002 and 2003, firms started including cameras on the rear panels of mobile devices. In 2005, the mobile was built to deliver great music, and it featured dedicated buttons for music playback and support for Memory Stick. These features combined make it an excellent device for enjoying music whenever one is on the move, in addition to serving all of the primary functions of a cell phone. The year 2006 saw the beginning of the mobile phone's rise to popularity as a trendy accessory. Mobile introduced the world's first sophisticated touch screen smartphone in 2007. It is because of a change in the phone's model. There has been a marked increase in the quality and price of mobile devices. Currently available smartphones are handheld personal computers that typically feature a liquid crystal display (LCD) screen, various private information management programmes preinstalled, and an operating system (OS) that allows additional computer software to be installed for video

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<sup>96</sup> With the introduction of their first handheld cellular phone in 1983, Motorola revolutionised the telecommunications industry. The Motorola Dyna TAC 8000X, or "Brick" for short, was the device in question. Retrieved from <https://www.proprofs.com/discuss/q/68630/in-1983-what-company-unveiled-the-first-truly-portable>. Accessed on 25/02/2016.

<sup>97</sup> NTT Docomo, a Japanese business, offered the world's first full-fledged Internet phone service just before the turn of the millennium in 1999. Retrieved from <https://www.unlockbase.com/blog/a-brief-history-of-the-cellphone>. Accessed on 25/02/2016.

playback, Web browsing, e-mail, music, and other applications. That is to say, the modern smartphone serves as both a phone and a computer.<sup>98</sup>

- **Various Generations of Mobile Technology:**

The first generation of wireless cell phones was similar to what we now refer to as 4G or zero. OG refers to mobile technology that existed before cell phones. Mobile radio telephone networks followed the use of wireless telephony. In 1983, the Motorola Company introduced the world to the first mobile phone, commonly referred to as a "1G" or "1stGeneration" phone because it relied on analogue signals. Due to its bulk and weight, the 1G phone required permanent installation in vehicles. The 1G phone's primary value was in relaying travel updates.<sup>99</sup>

The second generation of mobile networks, or 2G, was deployed from the late 1980s to the late 1990s and used digital signals to provide voice, data, and fax transmissions, among other value-added services. GSM technology, which uses digital modulation to enhance voice quality, has been included in 2G phones. However, networks only provide limited data services at this time. The 2.5G, which stands for "second and a half generation", features were making a foundation for the path of 3G with calling, text messaging, picture messaging, MMS, Mobile games, and GPRS packet data facilities. 3G or 3<sup>rd</sup> Generation Technology phones came out just a few years after 2G and allowed phones to multitask. One can even send and receive e-mails and text messages and use the internet via Wi-Fi. Services like mobile TV, GPS, and video conferencing are examples of the kinds of value-added features used by 3G networks. The speed of data transfer is the foundation of 3G technology, which also makes it highly adaptable.<sup>100</sup>

Fourth-generation mobile technology offers 100 Mbps speed. Similar to 3G, 4G has capabilities including multimedia messaging service (MMS), entertainment application programming interface (API), and high-definition digital television (HDTV). Today's smartphones are as powerful and versatile as laptop computers,

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<sup>98</sup> The first Smartphone was designed by IBM and sold by BellSouth (formerly part of the AT&T Corporation) in 1993. Retrieved from <https://www.britannica.com/technology/microcomputer>. Accessed on 27/02/2016.

<sup>99</sup> Tondare, S. M. et al. 2014. [Evolutionary Steps from 1G to 4.5 G](#). International Journal of Advanced Research in Computer and Communication Engineering. Vol. 3, Issue 4.

<sup>100</sup> Best, J. 2014. The Race to 5G: Inside the Fight for the future of Mobile as we know it. Retrieved from [Techrepublic.com](http://Techrepublic.com). Accessed on 28/02/2016.

with the advent of 4G technology. The breadth of the internet is now available on mobile phones, just like desktop computers, with no performance hit or loss of search results. Applications have improved significantly during the past several years. 5G, short for "Fifth Generation," is the next iteration of mobile Internet access, promising unprecedented speeds and reliability on smartphones and other devices. There is no authoritative source for the existence of 5G mobile technology, and no one organisation has provided a clear definition of what it entails.<sup>101</sup>

### **3.2. The Imagining and Emergence of the Internet:**

The Internet has brought about unprecedented change in the computer and communications fields. When it comes to the benefits of investing in and devoting time and resources to the development of IT, the internet is one of the most prominent examples. The following are some conclusions that may be drawn from an examination of the conceptualisation and advent of the Internet throughout the globe:

- The Precursory Steps for the Invention of the Internet
- Birth of the Internet: 1969
- The Birth of WWW, i.e., World Wide Web
- Internet Becomes a True Commercial medium
- The Precursory Steps for the Invention of the Internet:

In 1899, Guglielmo Marconi presented his "wireless telegraph," which eventually became known as a radio; this event marks the beginning of the Internet's history, a component of current wireless technology. Electromagnetic waves, used by Internet technology, are generated when an electric field and a magnetic field vibrate against one another. One type of electromagnetic energy is radio waves, which consist of electric and magnetic energy waves propagating through space at different frequencies. The radio frequency spectrum is indispensable for the internet, smartphones or other wireless communication infrastructures.

Information (voice, video, images, text, email, etc.) transmitted by a wireless communication device travel through the air via the antenna using radiofrequency fields. The data is picked up by an exterior antenna next door, giving an identical response. Radiation fields from an external antenna are broadcast to the surrounding

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<sup>101</sup> Hattachi, El. R. and J. Erfanin. 2015. NGMN 5G Initiative. NGMN Alliance.

region, allowing wireless devices such as smartphones to communicate with one another. At this point, we cannot ignore the transatlantic cable and Telephone invention, which Alexander Graham Bell invented in 1876. This is significant since cables are still the primary backbone of global communication, linking every continent today. Today's Internet connections rely heavily on telephone exchanges. Once again, modems are what allow computers to communicate over the telephone network by converting digital signals to analogue ones.<sup>102</sup>

- **Birth of the Internet: 1969:**

Created as a consequence of an effort to connect disparate research networks in the United States and Europe, the World Wide Web. In the 1950s, when the United States, the Soviet Union, and other industrialised countries were all using sophisticated computing equipment, the groundwork was laid for the internet. These supercomputers were extremely pricey but provided unprecedented computing capacity for scientific and military endeavours. Sputnik, the first artificial earth satellite, was launched into orbit by the Soviet Union in 1957. After then, global telecommunications began, and satellites continue to play an important role in the transmission of a broad variety of data even now. As part of its effort to maintain the United States' technical edge in military defence, the United States government founded the Advanced Research Projects Agency (ARPA) in 1958. One of its goals was to test the viability of a nationwide computer network. Thus, it reached out to various hosts in the United States and asked them to join ARPANET.<sup>103</sup> This small group of computers served as the backbone for the global network that would become known as the Internet and eventually connect with other networks worldwide, including Hawaii's ALOHA-net. Packet-switching networks emerged between 1962 and 1968.<sup>104</sup> In 1964 Paul Baran, an American engineer, proposed a communication

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<sup>102</sup> "Modulator/Demodulator" is shortened to "Modem." It's a piece of hardware that facilitates communication between a computer and an external network node (like a router or switch). Fiber optic (i.e. high-speed data transmission medium) connections do not require modems since signals are transferred digitally from start to finish. Retrieved from <https://en.wikipedia.org/wiki/Modem>. Accessed on 28/02/2016.

<sup>103</sup> "ARPANET" is an abbreviation for "Advanced Research Projects Agency Network," which was a precursor network to the Internet. The Advanced Research Projects Agency Network (ARPANET) was created in the late 1960s with funding from this branch of the U.S. Department of Defences. Retrieved from <https://www.britannica.com/topic/ARPANET>. 28/02/2016. Accessed on 04/03/2016

<sup>104</sup> Packet-switched networks route data packets depending on their destination addresses. Packet switching sends data via a network. When a computer sends a file to another, it's divided into packets for efficient network transmission. Network devices send these packets to their destination. When

network with no central command point. His revolutionary 'distributed network' design certified information segments to take different paths to their final destination so that no main computer or pathway could be brought down to cause a complete communications failure.

It's interesting to think back to the 1960s, when computers cost tens of thousands, if not hundreds of thousands, of dollars.<sup>105</sup> In addition to requiring a great deal of leeway, the Department of Défense's Advanced Research Projects Agency (ARPA) attempted to tackle the problem by linking many supercomputers so that users in different states could share data, programmes, and research. The ARPA net was established with four central nodes at the Universities of Santa Barbara, Los Angeles, Utah, and SRI International. Once linked, researchers would be able to access any data stored on any computer in any other hub just by sitting at one hub's computer. In 1969, the ARPANET was constructed; this network is considered by many to be the precursor of the Internet. Several other networks, such as the National Science Foundation Network (NSF-net), the European UNIX Network (EU-net), and the UK's Joint Academic Network (JAN), emerged with the maturation of communications protocols and technological infrastructure (JANET). Although it was slower than some modern modems, the first Internet system could transmit data at 56 kilobits per second. These days, information is sent rapidly thanks to cables installed throughout the system.

- **The Birth of the World Wide Web:**

In its early days, the internet was just a series of text-only displays. A mere four computers were linked to the ARPA-net by year's end in 1969, but this number rapidly increased during the 1970s. By the late 1970s, computer scientist Vinton Cerf had begun working on a solution to this difficulty, an innovation known as the Transmission Control Protocol (TCP) that would allow computers on different mini-networks worldwide to talk to each other. A second protocol, IP (Internet Protocol),

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transmitting data over a network, several protocols use a technique called "packet switching." Phone networks and ISDN links now employ packet switching instead of circuit switching. Internet traffic is mostly packet-switched and connectionless. 1969 saw the first packet-switching computer network. Retrieved from [https://en.wikipedia.org/wiki/Packet\\_switching](https://en.wikipedia.org/wiki/Packet_switching). Accessed on 04/03/2016.

<sup>105</sup> The first was at a UCLA research facility, and the second was at Stanford; both were the size of a modest house. Retrieved from [https://cs.stanford.edu/people/eroberts/courses/soco/projects/distributed-computing/html/body\\_history.html](https://cs.stanford.edu/people/eroberts/courses/soco/projects/distributed-computing/html/body_history.html). Accessed on 27/03/2016.

was added to his repertoire at a later date. Today, we often refer to them by the name TCP/IP. Douglas Engelbart and Ted Nelson developed the first functional hypertext systems<sup>106</sup> in the 1960s; these systems were the second computer to link to the ARPANET.<sup>107</sup> After a few years, in 1989, CERN's Tim Berners-Lee introduced a novel method for disseminating data via the Internet. He refers to it as the "Internet" or "WWW." Hypertext is the foundation of the World Wide Web, allowing users to go from one page to another by clicking on hyperlinks (which might be words, phrases, buttons, or visuals that have been carefully designed).

British physicist Tim Berners-Lee founded the World Wide Web (WWW) in 1989 as a CERN (European Organization for Nuclear Research) project called ENQUIRE. The World Wide Web was initially tested in December 1990 at the CERN facilities in Switzerland.<sup>108</sup> By 1991, browsers and web servers were accessible, and by 1992, at places like the University of Illinois, where Mark Andreessen<sup>109</sup> was interested, there were a few early pages. Mosaic pioneered the use of scroll bars and hyperlinks, allowing users to simultaneously see text and images on a web page. First, it lets users see words and pictures on the same page and utilise scrollbars and clickable links to navigate. In 1992, audio and video were first delivered online. Internet surfing is popularised. William Gibson first used the word "cyberspace" in 1984.

- **Internet becomes a True Commercial Medium:**

Access to the emerging Internet was confined to a few universities with ARPA research contracts until the end of the 1970s. As computer science became a recognised field of study in colleges, the exclusivity of the ARPA-net /Internet club was viewed as more unpleasant and ineffective. In the early 1980s, the US National

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<sup>106</sup> Hypertext refers to text shown on a computer screen or other electronic device with in-line references (hyperlinks) to more information that the reader may immediately access, or where text can be presented gradually at multiple levels of depth. Retrieved from <https://en.wikipedia.org/wiki/Hypertext>. Accessed on 27/03/2016.

<sup>107</sup> The mouse, GUI, and first functional hypertext system were all created by Douglas Engelbart and would go on to play pivotal roles in the development of personal computers. Clicking on a link, pressing a combination of keys, or touching the screen activates the link in another hypertext document. Retrieved from <https://en.wikipedia.org/wiki/Hypertext>. Accessed on 05/04/2016.

<sup>108</sup> At CERN, Berners-NeXT Lee's computer housed the first website and server, which were both devoted to the World Wide Web project itself. Retrieved from <https://home.cern/science/computing/birth-web>. Accessed on 05/04/2016.

<sup>109</sup> Marc Andreessen recommends the use of the IMG HTML element in 1993 so that photos can be shown on the World Wide Web. Retrieved from <https://home.cern/science/computing/birth-web>. Accessed on 05/04/2016.

Science Foundation (NSF) financed the establishment of the Computer Science Network (CSNET).

The World Wide Web was first made available to the public in 1993 by CERN<sup>110</sup> which was a true milestone in Internet history, launching entire industries and revolutionising old ones. They said anyone might use WWW without paying CERN a fee. This bold choice was similar to that of subsequent Internet pioneers who made their goods accessible. Mosaic, the first widespread web browser, was developed by Marc Andreessen at the National Centre for Supercomputing Applications (NCSA). One percent of all Internet traffic uses it as its primary navigation system. World Wide Web and Hypertext Transfer Protocol (HTTP), an internet language, sparked a new manner of exchanging information. The Internet proliferated from 1994 to 2000, unlike any other technology. The Internet was born. In its first two decades, it was led by a group of highly educated professionals from many fields of expertise. In the early 1990s, it began to see widespread use and is now recognised as a General-Purpose Technology (GPT) crucial to the functioning of modern society.

When Virtual, the first cyber-bank, started for business, it marked the beginning of a new age. The first commercial websites debut, and spam (or email marketing) are born.<sup>111</sup> Even though the first fully working web browser didn't appear until 1993, by 1995, we had Amazon, by 1998, we had Google<sup>112</sup>, and by 2001 millions of people were using Wikipedia.<sup>113</sup> In 1996, Hotmail was launched, providing customers with a web-based email service.<sup>114</sup> This made it possible to

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<sup>110</sup> Since 1954, CERN has grown significantly. CERN is an abbreviation for "Conseil Européen pour la Recherche Nucléaire," a temporary organisation created in 1952 to construct a world-class physics research institution in Europe. Pure physics study then focused on the atom's inside, therefore "nuclear." Retrieved from <https://knappily.com/onthisday/lhc-cern-634>. Accessed on 05/04/2016.

<sup>111</sup> As the first major commercial website, Amazon initially catered to the bookselling industry. Some estimates put the growth of the World Wide Web in 1994, the year the Amazon concept was conceived, at a whopping 2,300 percent. Amazon recognised early on that e-commerce will dominate the future, so it focused on the publishing industry. Retrieved from <http://www.nethistory.info/History%20of%20the%20Internet/web.html>. Accessed on 05/04/2016.

<sup>112</sup> In 1998, Google opens its first office, in California. Retrieved from <https://www.cnbc.com/2018/09/27/google-virtual-tour-of-larry-page-sergey-brins-1998-garage-office.html>. Accessed on 07/04/2016.

<sup>113</sup> "E-commerce" becomes the new buzzword as Internet shopping rapidly spreads and MySpace.com was launched. Retrieved from <https://www.infoplease.com/math-science/computers-internet/internet-timeline>. Accessed on 07/04/2016.

<sup>114</sup> Email predates ARPA-net and Internet. It wasn't invented; it began simply. MAILBOX, utilised at MIT in 1965, was the first of its kind. Before internetworking, email only reached people on the same computer. By 1993, "electronic mail" was supplanted by "email," and internet use grew. Retrieved

check email from any location. While electronic mail was a speedier option than regular mail, online instant messaging was much quicker.

Modern civilisation in the technological world lived through the dot-com bubble<sup>115</sup> and bust. For young people, the internet has opened them to many opportunities and tools for developing their agency in many fields. Social media and the Internet have permeated nearly every facet of modern life, from publishing to consumer banking, the pornographic business, travel agencies, and the music industry's evolution. After reading what has been written above, it should be evident that the fast commercialisation of the Internet was fuelled by the proliferation of commercial Internet services and applications. After reading what has been written above, it should be evident that the fast commercialisation of the Internet was fuelled by the proliferation of commercial Internet services and applications.

### **3.3. The emergence of the Smartphone: Seamlessly Blend Telephone Computer and Internet**

Now more than ever, technological advancements are indispensable. As humanity enters a new era of technological advancement, our demands increase in complexity. The advent of mobile technology and its growing internet usage capacity have made it the future of worldwide communication. Recently, though, Smartphone technology has taken this change one step further, and now we hold more powerful gadgets than ever before in our palms. With the emergence of powerful devices that seamlessly blend telephone, computer, and internet. Citizens don't use their mobile phones exclusively for phone calls anymore.

In most cases, a Smartphone will serve as both a mobile phone and a portable computer. Cell phones are perhaps more popular than desktop computers for accessing the Internet and viewing media. Most of us already carry a very efficient and convenient tool that always helps us in the workplace in our pockets.

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from <http://www.nethistory.info/History%20of%20the%20Internet/email.html>. Accessed on 07/04/2016.

<sup>115</sup> The dot-com bubble began before the Web and initially didn't understand its importance. The dot-com bubble was a period of excessive speculation from 1995 to 2000. Goodnight, G. T. and S. Green. 2010. Rhetoric, Risk, and Markets: The Dot-Com Bubble. Quarterly Journal of Speech, Routledge, Vol. 96, No. 2. P. 115-140.

We can't afford to sacrifice speed, efficiency, or quality. These capabilities should be integrated into a small package to fit in a user's back pocket. Our information is already stored locally but is too synchronised with the cloud. Cell phones have become a compulsion for every single individual in the changing global context. In 1992, IBM developed the first unofficial Smartphone<sup>116</sup>. This was a working prototype<sup>117</sup> of a gadget that could do tasks similar to a PDA,<sup>118</sup> including maps, news feeds, and stock quotes. The prototype led to 1994's Simon Personal Communicator. This was the first official Smartphone with email and programmes like an address book, calculator, calendar, and notepad. Smartphones became popular in the late 2000s. New Smartphone versions and app expansions are boosting user numbers. Increasing high-speed connections and 3G and 4G networks represent Smartphone growth. Smartphones are used as personal organisers, media players, online browsers, music mixers, and Facebook to find a location, send and receive electronic business cards, exchange material, and much more. In short, we can say a Smartphone<sup>119</sup> can:

- a. Make voice calls
- b. Make video calls
- c. Connect to the internet and explore the web
- d. Take photos and share them
- e. Virtual assistant using Siri,<sup>120</sup> Google Voice Search, or Cortana.<sup>121</sup>

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<sup>116</sup> Big Blue refers to the International Business Machines Corporation (IBM), an American multinational technology business headquartered in Armonk, New York, United States, that has operations in more than 170 countries. International Business Machines was founded in 1911 as the Computing-Tabulating-Recording Company (CTR) and changed its name in 1924. Retrieved from <https://en.wikipedia.org/wiki/IBM>. Accessed on 09/04/2016.

<sup>117</sup> In several fields, including semantics, design, electronics, and software development, the term "prototype" is used to refer to an early sample, model, or release of a product that is created to test an idea or technique or to serve as an object to be duplicated or learnt from. Retrieved from <https://computersciencewiki.org/index.php/Prototypes>. Accessed on 09/04/2016.

<sup>118</sup> PDAs are handheld devices that store and retrieve personal or business information, such as timetables, calendars, and address books. Popular PDA features include touch screens, Bluetooth, Wi-Fi, memory card connections, mobile software, and multimedia capabilities.. Retrieved from <https://searchmobilecomputing.techtarget.com/definition/personal-digital-assistant>. Accessed on 10/04/2016.

<sup>119</sup> Smartphones are many. Apple, Samsung, LG, HTC, Nokia, Sony Ericsson, Motorola, RIM, Palm, etc. make smartphones. Retrieved from <https://en.wikipedia.org/wiki/Smartphone>. Accessed on 10/04/2016.

<sup>120</sup> Siri, built inside Apple's iPhone, acts as a virtual personal assistant that can be instructed by speech to complete a wide range of activities. It provides useful services such as information retrieval, appointment setting, and communication. Retrieved from <https://en.wikipedia.org/wiki/Siri>. Accessed on 15/04/2016.

<sup>121</sup> Cortana is the virtual assistant built into Windows Phone 8.1 and Windows 10 that can answer queries, schedule meetings, and locate specific locations. The following languages may be used with

- f. Playback music and video are stored on the phone and connected to a PC to copy media.
- g. Use tools like a torch, e-reader, and calculator
- h. Manage your contacts and appointments
- i. Send emails
- j. GPS<sup>122</sup> capability for location and navigation.
- k. Play in-built games
- l. Show the current time and date along with additional time-related data.
- m. Play the latest games and run apps downloaded from the web.

Because they all run on a handful of operating systems, most smartphones have several essential components. In the same way that a computer's operating system controls the rest of the hardware, the software that contains a smartphone is called an "operating system."<sup>123</sup> Smartphones use f<sup>124</sup> to store data and apps. The flash memory is generally built into the phone and is non-removable. New software can be downloaded and installed on cell phones like on PCs. On mobile devices, they are referred to as "apps" (short for "applications"). Apps for smartphones are in the hundreds of thousands.<sup>125</sup> Lots of applications are zero-dollar or ad-supported. You will need to add funds to your market account if the app you want to download costs money. Applications, for instance, might take on a wide variety of forms:

- a. Games
- b. Music and video players
- c. Web browsers

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Cortana: Languages: English, Chinese, French, German, Italian, Japanese, Portuguese, and Spanish. Retrieved from <https://www.computerhope.com/jargon/c/cortana.htm>. Accessed on 15/04/2016.

<sup>122</sup> GPS, an abbreviation for "Global Positioning System," is a satellite-based navigation system. After the success of the Sputnik launch in 1957, the idea for GPS began to form. Anybody nowadays with the correct hardware or software can hook up to these satellites and pinpoint their location to within 50 or 100 feet. Retrieved from <https://www.computerhope.com/jargon/g/gps.htm>. Accessed on 15/04/2016.

<sup>123</sup> There are three major operating systems on smartphones such as Google Android, Apple iOS, Windows Phone. Retrieved from <https://www.businessnewsdaily.com/5759-android-vs-ios-vs-windows-phone-small-business.html>. Accessed on 15/04/2016.

<sup>124</sup> Flash memory (or flash storage) is a type of non-volatile computer storage media that can be electronically wiped and rewritten. This memory is a bit more costly than magnetic storage but uses an integrated circuit that doesn't need electricity to maintain data. USB flash drives, compact flash and secure digital (SD) memory cards, and flash memory sticks are all examples of flash memory in use today. Retrieved from <https://www.sciencedirect.com/topics/engineering/flash-memory>. Accessed on 19/04/2016.

<sup>125</sup> The most common app markets are the iTunes App store (on the iPhone), and Google Play (on most Android devices). Retrieved from <https://www.androidauthority.com/google-play-store-vs-the-apple-app-store-601836>. Accessed on 19/04/2016.

- d. Web services like YouTube
- e. Personal organisers and calendars
- f. Newsfeeds
- g. Productivity programs like word processors
- h. Many other valuable and fun tools.
- i. Email and social networking applications

In today's technological era, many businesses focus on developing cutting-edge smartphones in addition to traditional mobile phones.<sup>126</sup> These cellphones are getting increasingly potent as networking speeds increase, more flexible and appealing apps are created, and the population becomes more tech-savvy. Wireless technology has several advantages, such as smartphones, mobile phones, portable tablets, and laptop computers, and their value is rising. It's a universal need always to access one's data and information, a condition smartphone fulfil. As the demand for smartphones continues to increase, manufacturers are introducing new features, like dual-core CPUs and enhanced video capabilities to entice buyers.

### **3.4. The Global Expansion of Mobile Phones and Internet in the Modern World:**

Internet and mobile devices have increased worldwide in the last few years, but several countries and regions have had varying adoption rates. Researchers at the World Bank, in a 2012 report, estimated that almost 3 in 4 people worldwide now have access to a mobile phone. A similar report outlined seven common areas in which mobile technology helps emerging economies: agriculture, education, finance, health, governance, economic development, and gender equality.<sup>127</sup>

In 1979, the first commercial cellular telephone network began operations in Tokyo. By the mid-1980s, there had been a considerable increase in the services supplied to the general public, which had drawn vast customers. Radiolinja introduced digital cellular technology of the second generation (2G) in Finland in 1991<sup>128</sup> In accordance with the GSM standard, which created competition in the market as new

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<sup>126</sup> Some of the main smartphone manufacturing companies are Apple, Nokia, Samsung, HTC, Vodafone, Blackberry, Motorola, Siemens. Retrieved from <https://www.tigermobiles.com/evolution/#start>. Accessed on 19/04/2019.

<sup>127</sup> Retrieved from <http://www.worldbank.org/en/news/press-release/2012/07/17/mobile-phone-access-reaches-three-quarters-planets-population>. Accessed on 17/08/2018.

<sup>128</sup> In 1988, Radiolinja, a Finnish mobile phone company, joined the GSM (Global System for Mobile communications) network. The first global system for mobile communication (GSM) call was made over the Radiolinja network on March 27, 1991. On July 1, 1991, the network was made available for commercial usage. Retrieved from <https://en.wikipedia.org/wiki/Radiolinja>. Accessed on 20/04/2016.

operators challenged the established 1G network providers. After waiting a decade, in 2001, NTT- DOCOMO<sup>129</sup> introduced the 3G service based on the W-CDMA<sup>130</sup> standard in Japan. By 2009, it was clear that bandwidth-intensive activities like streaming media would eventually cause 3 G networks to experience disruption. Fourth-generation data-optimized technologies, which promised increases of up to 10 times the speed of current 3 G technology, became a focus of the industry. By 2020, fifth-generation (5G) wireless networks will be available.<sup>131</sup>

About 63% of the world's population is represented by the 4.7 billion people who have a mobile phone subscription. The GSMA<sup>132</sup> released their study, *Mobile Economy 2016*, at the end of 2015. Three-quarters of the global population will have a mobile subscription by 2020, with an extra billion people joining the network, according to the study's projections. The penetration rates in developed markets are slowing down as they approach saturation. According to the data presented in the paper, the number of unique subscribers in North America and Europe increased by 1.5% and 3.0%, respectively, between 2010 and 2015.

However, the number of subscribers climbed annually by more than 13% in Sub-Saharan Africa, which is still the world's most under-penetrated area, and by more than 10% in Asia-Pacific, which has the most subscribers of any region. 63% of people in the world are currently active internet users, with penetration ranging from 43% in Sub-Saharan Africa to 85% in Europe.<sup>133</sup> More than 70% of the world's

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<sup>129</sup> NTT DOCOMO is the predominant mobile phone operator in Japan. Retrieved from [https://en.wikipedia.org/wiki/NTT\\_Docomo](https://en.wikipedia.org/wiki/NTT_Docomo). Accessed on 20/04/2016.

<sup>130</sup> Wireless code division multiple access (W-CDMA) is a third-generation (3G) mobile wireless technology that provides higher data rates than current mobile devices. At 2 Mbps (local area access) or 384 Kbps, it's suitable for mobile/portable phones, pictures, data, and video (wide area access). Retrieved from <https://searchmobilecomputing.techtarget.com/definition/W-CDMA>. Accessed on 29/04/2016.

<sup>131</sup> Singh, S. 2018. [Eight Reasons Why 5G Is Better Than 4G](#). Altran. Archived.

<sup>132</sup> By combining roughly 800 operators with over 250 firms in the larger mobile ecosystem, including as handset and device makers, software companies, equipment suppliers, Internet companies, and organisations in adjacent industrial sectors, the GSMA supports the interests of mobile operators globally. It also organises major conferences, such as Mobile World Congress and Mobile World Congress Shanghai, and the Mobile 360 Series. Retrieved from <https://www.gsma.com/membership/wp-content/uploads/2012/03/Member-Brochure-2016.pdf>. Accessed on 05/01/2017.

<sup>133</sup> The Mobile Economy. Retrieved from <https://www.gsma.com/mobileeconomy/2016/global>. Accessed on 10/05/2016.

population will have a mobile subscription by the end of the decade, when the total number of subscribers reaches 5.6 billion.

Increases in Wi-Fi availability and the speed of 3G and 4G connections will encourage more people to use their mobile devices to access the web. Consumers' ability to access and share information from anywhere at any time has greatly increased the prevalence of mobile Internet usage on smartphones and tablets. Growth in mobile data traffic worldwide indicates a bright future for mobile internet access to increase by nearly seven between 2016 and 2021. According to statistics collected in January of 2018, the total number of mobile phone users<sup>134</sup> worldwide was estimated to be 3.7 billion. As of February 2017, 49.7 percent of all page views originated from mobile devices<sup>135</sup>, with mobility-first areas such as Asia and Africa leading the way. Nigeria, Singapore, India, Kenya, Indonesia, and Ghana rank first in mobile internet usage. The Americas and Europe have the highest penetration rate<sup>136</sup> for mobile broadband subscriptions, <sup>137</sup> approximately 78.2 percent, and 76.6 percent, respectively.

More and more people are turning to mobile applications for their day-to-day needs. As of March 2017, the two most popular app stores, Google Play and Apple's App Store <sup>138</sup> offered 2.8 and 2.2 million applications, respectively. As the number of accessible applications exploded<sup>139</sup>, businesses realised they needed to do more to keep their customers using their mobile apps than attract new ones. As of September

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<sup>134</sup> Global Digital Population. Retrieved from. <https://www.statista.com/statistics/617136/digital-population-worldwide>. Accessed on 10/05/2016.

<sup>135</sup> Share of mobile internet traffic. Retrieved from <https://www.statista.com/statistics/430830/share-of-mobile-internet-traffic-countries>. Accessed on 10/09/2019.

<sup>136</sup> Penetration is an indicator of popularity by brand or group. It is defined as the number of people, divided by the size of the relevant consumer population, who buy a particular brand or a category of goods at least once in a given time. Retrieved from <https://www.informit.com/articles/article.aspx?p=463943&seqNum=5>. Accessed on 10/09/2019.

<sup>137</sup> Mobile broadband internet subscription rate Retrieved from <https://www.statista.com/statistics/370694/mobile-broadband-internet-penetration-region>. Accessed on 10/02/2020.

<sup>138</sup> Number of apps available in leading app stores Retrieved from <https://www.statista.com/statistics/276623/number-of-apps-available-in-leading-app-stores>. Accessed on 10/05/2020.

<sup>139</sup> Mobile application user retention rate worldwide. Retrieved from <https://www.statista.com/statistics/751532/worldwide-application-user-retention-rate>. Accessed on 10/05/2020.

2017, the four most popular Android applications<sup>140</sup> in the world were Gmail, YouTube, Google Maps, and Google, while the four most popular iOS apps were YouTube, Facebook, Instagram, and Skype for iPhone. When it comes to using their mobile devices, many people gravitate toward social networking.

Regarding mobile messaging apps, Facebook Messenger is second only to WhatsApp<sup>141</sup> in user adoption, with more than 1.3 billion monthly active users as of July 2017. Popular mobile messaging programmes include QQ Mobile, WeChat, and Skype. Mobile messaging and social networking applications are "mobile social media."<sup>142</sup> Mobile Internet users view online videos<sup>143</sup>, more frequently than any other demographic, accounting for 58% of all digital video plays in the third quarter of 2017. Tencent Video, iQiYi Video, and Netflix are the three largest entertainment app<sup>144</sup> brands in the world, according to the Apple App Store. Spotify and Sound Cloud, two of the most famous music and audio applications, have also seen a rise in downloads and use.<sup>145</sup>

The proliferation of various online shopping preferences among consumers has contributed to the growth of mobile commerce. These preferences range from online grocery shopping to purchasing music, books, toys, movies, home appliances, video games, clothing, apparel, consumer electronics, and so on. In the third quarter of 2017, the average value of international Smartphone-placed online shopping orders was 104.63 USD. Almost half of the mobile shoppers in 2016 used their devices to

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<sup>140</sup> Leading Android apps reach worldwide in 2019. Retrieved from <https://www.statista.com/statistics/515396/global-reach-leading-mobile-android-apps>. Accessed on 10/05/2020.

<sup>141</sup> Most popular messaging apps 2019. Retrieved from <https://www.statista.com/statistics/258749/most-popular-global-mobile-messenger-apps>. Accessed on 10/05/2020.

<sup>142</sup> Leading Android communication apps worldwide Retrieved from <https://www.statista.com/statistics/690864/leading-google-play-communication-apps-worldwide-downloads>. Accessed on 20/05/2016.

<sup>143</sup> Worldwide mobile video play share Retrieved from <https://www.statista.com/statistics/444318/mobile-device-video-views-share>. Accessed on 10/05/2019.

<sup>144</sup> Leading iPhone entertainment apps worldwide 2020 Retrieved from <https://www.statista.com/statistics/696191/top-iphone-entertainment-apps-worldwide-by-revenue>. Accessed on 10/07/2019.

<sup>145</sup> Leading Android music apps worldwide Retrieved from <https://www.statista.com/statistics/691256/leading-google-play-music-worldwide-downloads>. Accessed on 10/10/2020.

save time; 46% of those who used their mobile devices to the shop did so because they considered it more convenient than a computer.<sup>146</sup>

Rapid growth in mobile phone use in developing nations is often cited as evidence that this technology is helping to empower people from the bottom up by providing greater access to information. Numerous current development efforts are focused on expanding mobile phone users' advantages. Building on this new integration, new programs are aimed at providing access to public records, accounting, data storage, and even mobile banking, mainly using only the cheapest models of phones. Analysts began to fret about the widening "digital gap" between wealthy and impoverished nations as the developed world witnessed a surge in Internet access to businesses, households, and schools. In the twenty-first century, information emerged as the most valuable resource. When compared to a computer and the World Wide Web, a phone's capabilities pale in comparison. There is a guaranteed market for mobile phone apps since they serve a need at a lower price point than PC programmes. To implement PC-based "interventions" like public kiosks and One Laptop per Child, substantial funding, a stable power supply, and a robust Internet backbone are essential. The internet and smartphone culture are a paradigm for developing ICT and a case study for bottom-up growth. Telephone-based systems have been significantly utilised in top-down approaches, allowing field workers, medical assistants, and community members to enter data. The most startling aspect of mobile phone adoption in developing nations is that impoverished people acquire them, feeling that the benefits outweigh the expense. Access to knowledge boosts confidence by enabling users to make better-informed decisions with a thorough awareness of possibilities and solutions. ICT for Growth and "technology communication" vary technically by emphasising mobile phones and the Internet. The political difference from this technological change represents a change in development policy. This new technology shifts the focus from delivering ideas to allowing individuals to access and share their knowledge.

Digital and financial exclusion, among other obstacles to economic growth in developing countries, are directly impacted by the widespread adoption of mobile technology. This will be the impetus for expanding economic and infrastructural

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<sup>146</sup> Silver, L. et al. 2019. [Mobile Connectivity in Emerging Economies](https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/). Retrieved from <https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/>. Accessed on 01/05/2020.

development, creating more employment in all sectors, and increasing access to essential services like those of the healthcare and education sectors. The mobile ecosystem has also been responsible for the direct hiring of many young people worldwide and the indirect hiring of an extra million individuals in other industries. The mobile money sector has matured to the point that it is helping to integrate previously unbanked and banked populations across the developing globe into the formal financial system.

### 3.5. Emergence and Evolution of Mobile Phone and Internet in India:

Indian Cellular Association statistics show that India is presently the world's second-largest production of mobile phones, behind only China.<sup>147</sup> It was on July 31, 1995, that West Bengal Chief Minister Jyoti Basu called Union Communications Minister Sukh Ram using a mobile phone. At the time, the idea of a mobile revolution was laughable.<sup>148</sup> Again in 1995, Videsh Sanchar Nigam Ltd<sup>150</sup> had an Independence Day gift for the Indian public, i.e., Internet connectivity. Through the Department of Telecommunications, I-NET, people could access the Internet through leased lines or dial-up facilities. India had progressed significantly since 1974 when Manoj Kumar directed the film "Roti, Kapda Aur Makaan."<sup>151</sup> and depicted the struggle of the average man for the essentials of existence - food, clothes, and shelter. Dhirubhai Ambani, the Reliance Group founder, coined the catchphrase "Roti, kapda,

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<sup>147</sup> The Indian Cellular Association (ICA) is a trade group that promotes the interests of the mobile phone industry in India. Its goal is to provide long-term mobile access to the Indian people by fostering the expansion of the mobile cellular sector in India, increasing competition in the industry, and establishing a fair and transparent market and regulatory framework. Retrieved from [https://www.newsvoir.com/index.php?option=com\\_content&view=background&clid=6662&Itemid=37](https://www.newsvoir.com/index.php?option=com_content&view=background&clid=6662&Itemid=37). Accessed on 01/05/2020.

<sup>148</sup> Saran, R. 2005. Bengal CM Jyoti Basu made India's first cell phone call to telecom minister Sukh Ram in 1995. India Today. Retrieved from <https://www.indiatoday.in/magazine/cover-story/story/20051226-bengal-cm-jyoti-basu-made-indias-first-cell-phone-call-to-telecom-minister-sukh-ram-in-1995-786399-2005-12-26>. Accessed on 01/05/2020.

<sup>149</sup> Modi Telstra (later branded as Spice) is India's first mobile operator. Retrieved from <https://economictimes.indiatimes.com/blogs/et-commentary/51120>. Accessed on 10/06/2018.

<sup>150</sup> Tata Communications, previously VSNL, provides telecommunications services globally. It's India's leading provider of international and local long-distance services. The firm operates India's landing stations, subsea cables, managed services, leased lines, and data centres. Retrieved from <https://www.business-standard.com/company/tata-comm-2295/information/company-history>. Accessed on 10/06/2018.

<sup>151</sup> "Food, Clothing, and Shelter" (Roti Kapda Aur Makan) is a 1974 Indian Bellwood film written, produced, and directed by Manoj Kumar. The title of the film is derived from a Hindi term referring to the essentials of life. Retrieved from [https://www.wikiwand.com/en/Roti\\_Kapda\\_Aur\\_Makaan](https://www.wikiwand.com/en/Roti_Kapda_Aur_Makaan). Accessed on 10/06/2018.

makaan aur Internet" (Food, clothing, shelter, and Internet) to highlight his vision for empowering India's aam Janata with telecom technology.<sup>152</sup>

National Telecom Policy IV.1.2 acknowledges the importance of broadband access for fundamental needs like education and healthcare and calls for the realisation of a "right to broadband." In 2000, broadband was pontifical for most Indians. Even mobile telecommunications were a luxury for urban Indians, costing Rs 32 for outgoing calls and Rs 16 for incoming calls in an era when phones resembled bits of brick or tiny hammers. When dial-up connections were the norm in the past, concepts like megabits per second (Mbps) were little more than pipe dreams. In recent years, notably after the introduction of Reliance Jio, the cost of mobile service in India has reduced, resulting in a lower average monthly mobile bill.<sup>153</sup>

A survey by the Internet and Mobile Association of India and the market research firm IMRB found that as of June 2017, India has over 420 million mobile phone and internet users, with growth occurring far more quickly in rural areas than in metropolitan ones. The research Mobile phone and Internet in India 2016 found that as of December 2016, 389 million people in India used the internet on their mobile devices. "Urban India is reaching saturation with a penetration rate of 51%, but rural India represents a 16 percent growth market for the future," the research stated. In addition, the number of Internet users increased by 15% between October 2015 and October 2016 compared to the previous year. While urban India expanded by 9 percent, rural India increased by over three times as much at 26 percent. The report also found that mobile data consumption has significantly exceeded voice service components as a proportion of the overall monthly mobile expenditure in urban India. In less than five years, the data component discount has increased from 45 percent to 65 percent of the total price.<sup>154</sup>

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<sup>152</sup> Background history of Indian Mobile phone. Retrieved from <https://www.digitalvidya.com/blog/roti-kapda-makaan-aur-internet-2>. Accessed on 10/06/2018.

<sup>153</sup> Rafiq, D. 2002. *Telecommunications Reform in India*. Greenwood Publishing Group.

<sup>154</sup> Telecom Regulatory Authority of India. 2017. Yearly Performance Indicator of Indian Telecom Sector. Second edition. Retrieved from <https://tra.gov.in/notifications/press-release/trai-releases-yearly-telecom-services-performance-indicator-report-1>. Accessed on 12/06/18.

Established in 2004, the Mobile and Internet Association of India<sup>155</sup> aims to represent the entire gamut of digital businesses in India. The association has been successfully discussing the challenges facing the digital and internet industry over the past 13 years, including web media, mobile advertising, online advertising, e-commerce, mobile products and services, mobile and digital payments, and emerging industries. India is the world's second-largest Internet market, with over 460 million users behind China.<sup>156</sup> About 638 million people in India will be connected to the web by 2021. Despite having many Internet users, only 26% of the Indian population used the internet in 2015. Given that just about 10% of Indians had access to the internet in 2011, this is a substantial rise over prior years. And although 71% of Indians are online, just 29% of Indian women do the same.<sup>157</sup>

Today's Indian internet users are no different from those anywhere else in the world regarding one crucial aspect: their love of social media. Because Facebook is the most widely used social networking site in India, its population of users is the greatest of any nation on the planet. Other well-known platforms include Google+, Skype, and WhatsApp. The majority of Indians who have access to the internet shop online at least once a month. India has also seen an increase in the use of mobile commerce. The percentage of Indian customers who have purchased their phones is relatively high. However, in today's world, wireless telecommunications are crucial to the success of the government's most ambitious development schemes: Digital India and Smart Cities. Make in India and Skill India, two additional government initiatives, also rely heavily on advances in telecommunications and information technology to succeed. India's evolution of mobile phones and the Internet reflects the transition of its telecoms and Internet infrastructure industry.<sup>158</sup>

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<sup>155</sup> According to the Societies Act of 1896, the Internet and Mobile Association of India (IAMAI) is a non-profit trade group. The organization's goal is to promote the growth of the online and mobile value-added services industries. Retrieved from <https://www.muniversity.mobi/IAMAI>. Accessed on 12/06/18.

<sup>156</sup> Countries with the highest number of internet users Retrieved from <https://www.statista.com/statistics/262966/number-of-internet-users-in-selected-countries>. Accessed on 05/06/2020.

<sup>157</sup> Internet usage in India - statistics & facts internet usage in India - statistics & facts retrieved from <https://www.statista.com/topics/2157/internet-usage-in-india>. Accessed on 12/05/2020.

<sup>158</sup> Marcus, F. F. 2002. [\*China and India Online: Information Technology Politics and Diplomacy in the World's Two Largest Nations\*](#). Rowman & Littlefield.

### **3.6. Digital Age and the Global Expanding role of Mobile Phones and the Internet:**

No physical obstacles existed to the free and easy flow of information throughout the digital era, which began in the 1970s with the introduction of the first personal computer and continued with the development of technologies that made this feasible. The digital age is also known as the information age or the computer age. Digital interaction is a defining feature of human activity, and this idea captures the pervasiveness of computing and the widespread use of technology in virtually every facet of human life. With the advent of the internet and the proliferation of cell phones worldwide, formerly inaccessible opportunities are now available to more people than ever before. Most people on Earth may now gain access to the information and tools that enable them to engage in today's global society actively.<sup>159</sup> The global effects of the information technology revolution can now be explained by the following:

- a) As a Tool of Communication
- b) As a Tool Entertainment
- c) As a Tool, Health Care and Medicine
- d) As a Tool Education
- e) As a Tool for Online service and Financial Information
- f) As a Tool for Social Change
- g) As a Tool of Business Communication
- h) As a Tool for User's Psychological change and impact on health

#### **a) As a Tool of Communication:**

Mobile phones and the Internet have transformed the way people talk to one another as the digital era has spread worldwide. Their rapid global spread has been remarkable. It has made it easier to communicate anywhere and all the time, but we tend to neglect a face-to-face conversation with our family and friends because it's become so simple.<sup>160</sup> They make information and interpersonal interaction available to individuals with unprecedented connectivity. Mobile internet access makes it effortless to communicate with anyone, wherever in the globe. Phone conversations, video calls, text messaging, multimedia communications, email, and the transmission of any type of data are just some of the broad features of today's mobile devices. For

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<sup>159</sup> Hutchison, D. et al. 2009. Universal Access in Human-Computer Interaction. Fifth International Conference, UAHCI.

<sup>160</sup> Rusten, G. and S. Skerratt. 2008. Information and Communication Technologies in Rural Society Being rural in a digital age. Routledge Taylor and Francis Group.

these and other reasons, it's inevitable that modern mobile phones facilitate effortless communication, expand individuals' range of motion, and increase the likelihood of successfully contacting the desired individual. The digital age and global expansion of mobile phones and internet culture serve as a tool for social connection.<sup>161</sup> The impact of digital technology has gone well beyond social media. The mobile app store is yet another option; it's an online market where users can browse and download programmes for various devices and uses. For instance, we don't have to pry as much personal information out of a person these days. Simply looking up a person's name online and scrolling through their page may tell us a lot about that person's character, history, and aspirations.<sup>162</sup>

### **b) As a Tool of Entertainment:**

The digital age and the global expansion of mobile phones and the internet have diversified the entertainment world. We can download favourite music and watch movies online instead of going to the movies. There are many gaming machines like play stations, and we can download applications online to relieve us of our bedroom. The proliferation of smartphones and internet access worldwide has altered the way people consume television content. Nowadays, we can stop live TV, rewind it if we missed something, and customise our viewing experience. With the help of technology, the television business is undergoing a transformation that is nothing short of astounding. Modern technology and the prevalence of the internet have made it possible to watch any show at any time and from any location. In the television industry's digital realm, there are no limitations. Before the advent of YouTube, families were limited to watching only one channel at a time. Now, viewers can instantly access any episode of their favourite show they may have missed. To enjoy media on portable devices like smartphones is an excellent amenity for modern households. Using the same subscription service, a family may spread out across many screens to watch their favourite shows.<sup>163</sup> Modern advancements in technology have greatly expanded the capabilities of television sets. Present-day TVs can be

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<sup>161</sup> Kluver, R. 2018. Globalization, Informatization, and Intercultural Communication. United Nations Public Administration Network.

<sup>162</sup> Hernandez, G. M. et al. 2007. Information Communication Technologies and Human Development: Opportunities and Challenges. • London • Melbourne • Singapore: Idea Group Publishing, Hershey.

<sup>163</sup> Pay-TV, often known as pay television or pay TV, is a type of television service that requires a monthly fee in order to see. Retrieved from <https://www.books.google.co.in>. Accessed on 05/05/2018.

wirelessly linked to the web and stream media from anywhere in the world. The electronic books may be read on them. It is possible to utilise a TV as a projection screen. TV days come with a whole host of valuable features. For the sake of brevity, let's just say that in today's technological era, everyone who has access to the internet on their mobile phone can do anything from play games to listen to music, download pictures and movies, talk to friends and check out their favourite social networking sites like Facebook, Myspace, Twitter, and YouTube.<sup>164</sup>

### **c) As a Tool of Health Care and Medicine:**

The world relied on home remedies before medical equipment could treat any sicknesses. Now that we live in a digital era where smartphones and the internet are ubiquitous, many mobile apps help users keep track of their medications, compare prices, discover new therapies, and verify their prescriptions. Because of this, the internet and mobile phones can now play an essential role in the medical field. Several fitness, nutrition, and health monitoring applications are still accessible today. Apps like a Run keeper, which lets users track their fitness and food, as well as electronic health records and wellness programmes, have been reaping the benefits of mobile health without people even recognising it. Many health and wellness apps are available for mobile devices now, including medication encyclopaedias, medical calculators, reference books, and apps for monitoring one's diet and exercise habits.<sup>165</sup>

Complex medical problems demand specialised knowledge and skills, and it can be challenging to locate the resources needed to address them. Multiple apps are helpful because they provide quick access to technical expertise in radiology, neurology, neonatology, paediatrics, and continuous education for medical professionals. However, several studies have sought to identify the characteristics contributing to problematic cell phone usage during the past decade. Some people are concerned that the microwave range electromagnetic radiation emitted by mobile phones may be hazardous to human health. However, the advent of the digital era and the widespread use of mobile phones and the internet have enabled the deployment of solutions to many of these issues in every region of the world.

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<sup>164</sup> Weert, V. T. and H. V. Utrecht. 2005. Information and Communication Technologies and Real- Life Learning. Springer.

<sup>165</sup> Subramani, R. 2016. Health on Demand: Insider Tips to Prevent Illness and Optimize Your Care in the Digital Age of Medicine. Kindle, New York.

This presents a tremendous potential to bring together, heal, educate, and empower a global population with the proper infrastructure and applications.<sup>166</sup> Some senior patients in the real world of the digital era may be reluctant to use smartphones, but they would greatly benefit from the services that E-Hospital<sup>167</sup>, E-Healthcare, and programmes like them provide. With the help of E-Healthcare<sup>168</sup>, patients in India will have access to their medical records online, have prescriptions delivered to their homes, interact with doctors, and share their health data with other medical facilities across the country. These essential measures must enhance communication between doctors and their patients and facilitate better medical data sharing. In the near future, I anticipate a new breed of mobile applications that will allow doctors and parents to monitor a patient's or child's blood sugar level in real time and from anywhere. Apps are still available to monitor physical activity, nutritional intake, and blood pressure.

#### **d) As a Tool of education:**

In the modern era, with the proliferation of smartphones and the internet, there is now another option for those who seek information to achieve their goals and ambitions. Not only gaining knowledge, but every part of the education system in the world is simplified because of the digital age and global expansion of the internet and mobile phones.<sup>169</sup> Technological capabilities hold great promise for advancing classroom and extracurricular learning. It can be said that the scope of the digital age in education is vast and equal to all. Teachers use the global expansion of the internet and mobile phones to enhance their lessons. It can make the class more interactive and exciting for students.<sup>170</sup> Through the internet and mobile phones, we can see potential educational institutions, enrol in courses, check-up courses, research results, take

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<sup>166</sup> Ibid.

<sup>167</sup> To solve these issues and bridge the gap between patients, medical facilities, and physicians, E-Hospital provides a centralised online hub. Retrieved from <https://theprint.in/india/governance>. Accessed on 02/05/2020.

<sup>168</sup> The concept of "e-healthcare," or healthcare provided over the Internet, has only existed since 1999. [1] There is a lack of consistency in the use of this term. Retrieved from <https://en.wikipedia.org/wiki/EHealth>. Accessed on 05/05/2018.

<sup>169</sup> Martin, J. and L. Hawkins 2011. Information Communication Technologies for Human Services Education

and Delivery: Concepts and Cases. Information Science Reference. New York.

<sup>170</sup> Tomei, L. 2007. Integrating Information & Communications Technologies into the Classroom. Information Science Publishing, Singapore.

classes, and even hunt for career opportunities. That we are never too old or busy to learn something new is equally valid today.<sup>171</sup>

With the proliferation of smartphones, widespread access to the web, and the advent of high-speed mobile surfing, a new platform has emerged to access educational resources. Users can take advantage of the educational resources on their mobile devices whenever and wherever they choose. Students may keep up with the newest developments in their field of study by reading about them in digital media.<sup>172</sup> Students and scholars have access to the most recent data using digital technology. They, therefore, are in a better position to make well-informed conclusions and decisions on any research, assignments and projects. Students benefit from the advent of the internet and the proliferation of mobile phones since it allows them to learn new technologies, improve their writing, and, in some cases, even their critical thinking.<sup>173</sup>

Students' learning experiences are enhanced by the accessibility of smartphones, which allow them to share and access information in real-time, collaborate with peers, and view and share media such as movies and photographs. In places where high-quality educational institutions, extensive facilities, and established methods of instruction are absent, wireless technology may bridge the gap with robust connectivity. Again, several companies provide and develop digital textbooks.<sup>174</sup> In this context, it is also noted that language learning is another area where digital technology generates. One may sum up the benefits and drawbacks of the information age by saying that the widespread availability of mobile phones and the internet has given modern civilisation access to an unprecedented wealth of resources for acquiring knowledge.<sup>175</sup>

#### **e) As a Tool of Online Service and Financial Information:**

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<sup>171</sup> Advantages and Disadvantages of Mobile Learning. Retrieved from <https://elearningindustry.com/advantages-and-disadvantages-of-online-learning>. Accessed on 05/05/2018.

<sup>172</sup> Wang, C. X. V. 2011. Encyclopedia of Information Communication Technologies and Adult Education Integration. Information Science Reference. New York.

<sup>173</sup> Florian, I. and John Hegarty. 2004. ICT and Special Educational Needs. Open University Press, McGraw-Hill Education Shoppenhangers Road. Maidenhead Berkshire. England.

<sup>174</sup> Free Online Courses. Retrieved from [https://www.edutubebd.com/file\\_resource/1368197236online%20education%20system.pdf](https://www.edutubebd.com/file_resource/1368197236online%20education%20system.pdf). Accessed on 05/05/2018.

<sup>175</sup> Seng, T. K. and L. S. Choo. 2008. Information and Communication Technologies in Education. World Scientific Publishing Co. Pte. Ltd. 5 Toh Tuck Link, Singapore.

The contemporary world might be challenging if one does not have a bank account. Mobile banking services such as account access, bill payment, and money transfer are becoming increasingly important. This is a global opportunity, as seen by the rise of mobile banking and online shopping over the past few years. The ability to make payments through mobile devices is increasingly important as a globally valuable financial service. A customer's account balance, a bill, or an ATM's location may all be sent to them with the click of a button. Banks may also gain efficiency, possibilities, and value from mobile banking. Mobile services like check deposits, balance enquiries, and account transfers help banks improve customer service in several ways. Mobile phones can facilitate easier access to financial resources, including mobile money and payments, improved personal financial management, and more market-related knowledge. We can send money anywhere in the world from Digital banking, Paytm, Goole-Pay, Phone-Pay, M-Pesa <sup>176</sup> etc. are the burning examples. At this point, the concept of E-Wallet, or we can say electronic wallet, the main objective is to make paperless money transactions uncomplicated is valuable. E-wallets are electronic payment cards that may be used in place of a traditional wallet while shopping online from a computer or mobile device.<sup>177</sup>

Banks worldwide are now investigating options for transitioning to a digital-centric business strategy. Digital services have enormous growth potential to bridge the gap between socially and geographically separated people. The benefits to developing nations are substantial, especially in agriculture, healthcare, and the economy. The impact of digital services is maximised when content is tailored to the specific environment in which it will be used and when the services themselves can thrive without outside funding, thanks to sustainable business models.<sup>178</sup>

#### **f) As a Tools for Social Change:**

Although the advent of the digital age and the worldwide proliferation of the internet and mobile phones might contribute to social transformation, they do not open up new avenues for economic development. The use of mobile phones will

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<sup>176</sup> Microfinancing, mobile money transfers, and other financial services are all made possible through M-Pesa. Retrieved from <https://en.wikipedia.org/wiki/M-Pesa>. Accessed on 05/05/2018.

<sup>177</sup> Henry, D. et al. 1999. The Emerging Digital Economy II. US Department of Commerce. P. 2-12.

<sup>178</sup> Cooke, S. D. 2003. Information Technology Workers in the Digital Economy. In Digital Economy, Economics and Statistics Administration, Department of Commerce.

contribute to providing a forum where young people may discuss serious topics. Ultimately, this will result in more agency. In this way, businesses may serve as catalysts for societal transformation. Already, mobile phones are changing social and economic relations, bringing tremendous benefits to developing nations through economic growth and individual empowerment; they may even allow these countries to skip over some of the conventional stages of development. It can also aid women in situations when they are physically isolated from their communities and forced to remain within their husbands' social circles. Lost time with loved ones is another negative social impact of the rise of digital technologies. Excessive use of mobile phones severely disrupts crucial personal time activities, such as reading a favourite book after work, playing the guitar, relaxing on vacation, and enjoying dinner with friends.<sup>179</sup> Businesses can always reach their employees, interrupt their pleasurable free-time activities, and insist that they perform work thanks to the widespread availability of cell phones and the internet.

#### **g) As a Tool of Business Communication:**

The widespread availability of digital technologies like mobile phones and the Internet has profoundly affected modern business practices, making it much easier for enterprises to stay in touch with their clientele. In commercial finance, digital technology plays an equally important role. Commonplace speeches and stock images for use in annual reports are the tools for the global business idea. Modern, customer-focused mobile financial services, where advances in digital technology make possible an array of financial instruments for businesses. These tools provide access to market data and financial services like borrowing, insurance, and bill paying. Applications in mobile banking, or mobile finance, may do anything from giving consumers regular reminders on their smartphones to supply individuals and small company owners with sophisticated business tools.<sup>180</sup> Many small enterprises in today's developing nations may not have access to adequate banking services and must rely on cash. In such cases, using electronic payment and financial services enables further-flung transactions, reduces transaction costs, enhances security by

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<sup>179</sup> Barnard, S. R. 2012. Digitally Enabled Social Change: Activism in the Internet Age. New Media & Society. Sage publication. Vol-14, issue-5. P. 894-895.

<sup>180</sup> Teti, A. 2009. Il Futuro dell' Information & Communication Technology Technologie, timori e scenario future della "global network revolution". Springer.

reducing reliance on money, and gives businesses access to more clients. Thus, digital technology contributes to global economic development, financial capacity, and social harmony. The absence of quality, timely, and diversified information has humiliated many projects and businesses, especially in emerging India. Thanks to mobile technology, farmers can now locate the finest places to sell their products, increasing availability, decreasing search costs, and boosting economies.<sup>181</sup>

#### **h) As a Tool for User's Psychological change and Impact on Health:**

In light of what has been said above, it is evident that the proliferation of digital technologies such as smartphones and the internet have a profound and irrefutable effect on every aspect of human existence. Life without digital technology is very troublesome and inconvenient. Just like everything, these technologies have both positive and negative effects. Young generations are just addicted to smartphones. They can be seen chatting, playing games and talking to their friends on their mobile phones most of the time. Again, a mobile phone addict will use their device while engaged in other activities, such as studying, eating, driving, or even in unsuitable settings, such as hospitals, churches, classrooms, restrooms, and gas stations. Many adolescents wasted teen hours each day on pointless texting. Spending money and time like this is ridiculous. Students do not devote enough time to schoolwork because they are preoccupied with mobile phones and other wireless ICT activities, including playing games, viewing movies, listening to music, and reading messages. Most of the daily accidents arise because of wireless information and communication technologies. Addicts, according to certain studies and surveys, engage in excessive amounts of cyberporn, cybersex, online relationships, online gambling, and online shopping.<sup>182</sup>

Apart from accidents, mobile phones have a terrible effect on health. Anxiety disorder was found in adults with problematic wireless technology users. Among adolescents and teenagers, internet addictions were associated with high level depression, social phobia, restless sleep, aggression, poor eyesight, shyness, foggy brain, memory problems, moodiness and unexplained aches and suicidal ideation. To

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<sup>181</sup> Graaf, V. S. 2007. Information Communication Technologies and Emerging Business Strategies. Idea Group Publishing, Hershey. Landon.

<sup>182</sup> Slyk, V. C. 2008. Information Communication Technologies: Concepts, Methodologies, Tools, and Applications. Information Science Reference, New York. Volume -1.

cope with their increased social anxiety, people are increasingly withdrawing from social interactions and becoming more introverted due to the prevalence of digital technology. A person's addiction to digital media might heighten their concern about being judged negatively by others and can put off meeting up with them in person. Some studies have linked cancer, autism, DNA damage, brain dysfunction, immune system issues, and sleep disturbances to the persistent exposure to the powerful, high-frequency radio waves and electromagnetic radiation associated with wireless gadgets.<sup>183</sup>

Finally, it may be claimed that the information society is a necessary precondition for understanding the growing importance of digital technologies like the internet and mobile phones worldwide. The term "information society" describes modern cultures in which information creation, dissemination, consumption, and exploitation have become central to many facets of life, including the economy, government, and popular culture.<sup>184</sup> Learning, working, and socialising are all conducted differently now than in the past. It was not until the advent of universal Internet access that the digital age could truly begin. Every aspect of our lives in the 21st century is influenced by digital technology.

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<sup>183</sup> Grady, D. 2018. *Cancer Risk from Cellphone Radiation Is Small, Studies Show*. [The New York Times](#).

<sup>184</sup> Information society Retrieved from [https://en.wikipedia.org/wiki/Information\\_society](https://en.wikipedia.org/wiki/Information_society). Accessed on 09/05/2018.

## *Chapter: 4*

### **Concept of Marginalization in India conjointly West Bengal**

It is an everlasting truth that all men are not equal.<sup>185</sup> Human beings became unequal not only due to their intellect or physical strength but also man-made or civilization ascertained inequality is also an uttermost subject which isolates every individual into the dissimilar ledge. Inequalities exist in every type of human civilization. History is a speculum method that incorporates competing narratives into a composite picture of oppression and marginalisation. Usually, society determined inequality and caste-based inequality is nearly synonymous. The core bases of marginalisation vary from society to society. Neither culture is free of poorer sections and marginalized groups. Equal access to and participation in educational institutions is an issue for every country. Equal opportunity to receive an education is influenced by the human rights of non-discrimination and of being treated fairly. This ideology has to be implemented at the national level. Prohibiting discrimination and fostering a setting conducive to greater fairness can be accomplished through national legal frameworks. All economic, social, and political disputes in which marginalised people have a role can be traced back to marginalisation. All aspects of India's social, political, and economic structure have been reorganised to provide formerly underprivileged groups a greater voice and influence according to constitutional provisions enacted in 1992. There are a lot of individuals in India who haven't benefited from the country's economic progress and wealth.<sup>186</sup>

#### **4.1 Meaning of the Concept of Marginalize and Marginalization:**

The term "marginalise" refers to reducing something to an extreme minimum or making it inconsequential in terms of social status. Marginalize is "to relegate to an insignificant or weak status within a community or group," according to the online Merriam-Webster dictionary.<sup>187</sup> Marginality is a state of disadvantage that people and

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<sup>185</sup>Crosib, R. G. 2008. The Bible, The Hallowed Book of Man. Four Elements Published Ltd. P.-587.

<sup>186</sup>Silver, H. 1994. *Social Exclusion and Social Solidarity: Three Paradigms*. [International Labour Review](#). P.-531-78.

<sup>187</sup> Marginalized Writing vs. Marginalized People. Retrieved from <https://www.merriam-webster.com/dictionary/marginalize>. Accessed on 17/09/2018.

communities are forced to endure due to exposure to harmful environmental, social, cultural, political, and economic circumstances. Despite widespread insignificance, talks frequently focus on the dismal state of the economy and the environment. The term "Marginalization" usually describes human civilization's overt behaviour or aptitudes by excluding or excluding those viewed as unwanted or operating from the dominant structures of security and inclusion, thereby restricting their opportunities and means of survival. Business Dictionary defines the term marginalization as "The process whereby something or someone is pushed to the edge of a group and accorded lesser importance. This is primarily a social phenomenon which excludes a minority or subgroup, and ignores their needs or desires."<sup>188</sup>

Neo-classical economics, Marxism, the idea of social exclusion, and other types of marginalities provide useful examples of the term marginalisation. The prevalence of a "culture of poverty" is attributed by neoclassical economics to "character deficiencies" or "cultural obstacles to individualism," whereas the former is said to be the cause of economic marginalisation.<sup>189</sup> Marginalization, on the other hand, is seen as a positive aspect of capitalism by Marxists.<sup>190</sup> For Marx, businesses utilise the jobless and underemployed as a "reserve army of the proletariat" to drive down wages. Marxism has had a significant impact on modern theories of social exclusion, which place a premium on social networks and symbolic borders. Social exclusion theorists like Amartya Sen say that social hierarchies, persistent inequality, various types of discrimination, poverty, and unemployment are the main drivers of marginalisation.<sup>191</sup> Robert Park's 1928 essay, "Human Migration and the Marginal Man," is credited with introducing the notion of marginality to the study of sociology. In it, Park discussed the constraints migrants face due to their simultaneous participation in many cultural traditions. Park used the word "Marginality" to describe the condition of being a "outsider" to the preeminent human civilisation. As time went

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<sup>188</sup> Definition of Marginalization Retrieved from <http://www.businessdictionary.com/definition/marginalization.html>. Accessed on 17/09/2018.

<sup>189</sup>Gatzweiler, F.W &Baumuller, H. 2014. Marginality—A Framework for Analysing Causal Complexities of Poverty. Book: Marginality: Addressing the Nexus of Poverty, Exclusion and Ecology. Springer Dordrecht, Heidelberg, New York London, P. 27-37.

<sup>190</sup>Therborn, G. 2009. From Marxism to Post-Marxism. Verso, London and New York.

<sup>191</sup>Sen A. 2000. Social Exclusion: Concept, Application, and Scrutiny. Social Development Paper, Asian Development Bank, Manila, Philippines. P. 9-43.

on, Stone Quist maintained this line of inquiry.<sup>192</sup> Existing mechanisms of protection and inclusion do not cover the disadvantaged. As intended by the exclusion policy, it effectively marginalises these communities on all fronts of social, cultural, political, and economic life.

#### **4.2 Nature of Marginalization:**

Marginalization has several facets and historical causes. There is a wide range in the experience of marginalisation that older persons have across cultures and locations. The complexities of marginalisation are not amenable to reduction to simple rules. Class, distinctive social, cultural, economic, and political circumstances, ideologic systems, social consciousness, and human action are all effective interpretive tools. Following this debate, two important conceptual frameworks emerge that might aid in understanding the nature of marginalisation: the social exclusion model and the cultural relativism model. These include:

- **Social Marginalization**
- **Geographical or Spatial Marginalization**

Understanding the root causes of social problems including inequality, injustice, and exclusion is central to the study of social marginalisation. It is linked to and concerned with societal problems that may be broken down into a wide variety of categories, including but not limited to race, caste, creed, class culture, age power, gender, and sex. The socially marginalised serve as a microcosm of humanity's larger demographic, cultural, religious, and socioeconomic dimensions.<sup>193</sup> Ignorance, bigotry, religious fanaticism, a dualistic economy, and the remnants of the feudal system are all significant contributors to social marginalisation, but they are not the cause. These factors are very important contributors to the marginalisation procedure. These forms of oppression are typically imposed by a stronger individual on a group of weaker individuals. Sometimes it serves the group's interests and other times it

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<sup>192</sup>Stonequist, E. V. 1937. *The Marginal Man: A Study in Personality and Culture Conflict*. New York: Russell & Russell.

<sup>193</sup> Chattopadhyay, A. 2013. *Poverty and Social Exclusion in India: Issues and Challenges*. New Delhi: Rawat Publications.

serves the individuals. Therefore, social marginalisation practices have an indirect effect on the development of an individual or group.<sup>194</sup>

Geographical or spatial marginalisation, on the other hand, focuses on a group's physical surroundings. It represents how far away a place is from significant population and commercial hubs. It is about the far-flung places where getting anything done is a major hassle. Because of this, those places seldom get the attention or resources that more populous regions get. They are geographically isolated due to the tight isolation to which they are subjected. Marginalization, or the process of being pushed to the periphery, has garnered considerable attention in the field of human geography.<sup>195</sup>

Studies of social and geographical inequalities in development have paid considerable attention to two basic questions: (1) how large are the resulting gaps in standard of living, and (2) what factors contribute to these gaps in the first place? Relegation to the periphery of society owing to a denial of rights, resources, and opportunities are known as marginalisation, which is also known as social exclusion.<sup>196</sup> When people feel vulnerable because they aren't prepared to deal with a variety of threats, it contributes significantly to a state of insecurity.

#### **4.3 Levels and Types of Marginalization in India Conjointly West Bengal:**

After the above analysis of the nature of marginalization, it is explicit that the term “marginalization” has unbolted with multifarious meanings. Marginalization occurs synchronously at the micro and macro levels. Individuals as well as societies, or even entire nations at the global level – may face marginalization. In India conjointly with West Bengal, marginalization occurs at following the three levels which are

- **Individual-level**
- **Group or community level**
- **Global level**

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<sup>194</sup> Mehretu, A. et al. 2000. Concepts in Social and Spatial Marginality, Ltd. on behalf of the Swedish Society for Anthropology and Geography. Vol. 82, issue 2, P. 96-101.

<sup>195</sup> Ibid. P. 76-80.

<sup>196</sup> Ibid. P. 86-94.

At the individual level, marginalisation in Indian society results when people are prevented from playing an active role in civic life. A person may experience prejudice in their home, community, place of employment, or place of religion, among other social contexts. Disabled people are still routinely excluded from mainstream society despite advancements in disability rights legislation, public awareness campaigns, and educational opportunities.<sup>197</sup>

Similarly, in both West Bengal and India, marginalisation happens at the community level when a group of people is separated from the rest of society as a result of institutionalised norms, rules, and regulations. As a result of colonialism, indigenous populations have been pushed to the margins of society. Because of colonisation, indigenous people were dispossessed of their lands, relocated to poor neighbourhoods, had their traditional means of subsistence destroyed, and were largely shut out of the economy. Because of forced assimilation, indigenous tribes no longer have the legal protections and cultural practices that once existed for them.

Some international factors play a crucial role in perpetuating marginalisation. Globalization is more than economic. Closely related to economic globalization is technological globalization. Another aspect of globalization, which is often seen in the path of economic globalization, is cultural globalization. Individuals, communities, and even entire countries can be pushed to the margins by larger societal systems including global capitalism, globalisation, social welfare, and governance. The divide between the rural and urban, between the generations, and between the wealthy and the poor has become wider as a result of globalisation. Capitalism, job instability, company outsourcing, information technology, and the growing wealth disparity all have far-reaching effects on individuals and communities.<sup>198</sup>

Marginalization varies in different settings and also varies from culture to culture. A country's culture, ecological system, hierarchy, political economy, and overall social structure influence the marginalization of specific groups or individuals.

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<sup>197</sup>Peace, R. 2001. Social exclusion: A concept in need of definition? *Social Policy Journal of New Zealand*. P. 22-29.

<sup>198</sup>Kolenda, P. 2015. *Caste, Marriage and inequality: Studies from North and South India*. Rawat publications.

Though there are various types of marginalization in West Bengal as well as India, it can be identified some broad types, such as:

- **Social marginalization**
- **Economic marginalization,**
- **Political marginalization**

People on the outside of society may face fewer professional and personal prospects. Public attitude and behaviour can have a negative impact on them, and they are often the target of criticism. Their opportunities to contribute to society may be hampered, and they may even become more insecure and disrespectful of themselves as a result. Social marginalisation occurs when people and communities are cut off from meaningful participation in society. Because of this, it's extremely difficult for them to take part in what society considers "normal" activities. The person is subjected to stress and social pressure from society's dominant group as they are ushered into a new set of norms. Those on the economic margins are often denied access to the same resources as their more privileged peers. People of certain racial or ethnic backgrounds face prejudice just because of where they were born. In most cases, the marginalisation is permanent. They are unable to fully participate in traditional development initiatives due to a lack of social and cultural capital. All of its relationships are vulnerable and brittle. Economic, educational, cultural, and other forms of social support are all closed off to them. Thus, they become marginalised in society and are prevented from actively contributing to their own growth.<sup>199</sup>

The term "economic marginalisation" refers to the exclusion of a population or nation from full participation in the economic system. It is a term used to describe those who are economically excluded from society. To be economically marginalised is to be of negligible economic consequence. It is possible to isolate certain people or communities from the rest of the economy. The quantity of money from each source also varies. People's health and well-being are impacted in direct and indirect ways by economic marginalisation and poverty.<sup>200</sup>

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<sup>199</sup> Schatz, E. and Schiffer, K. 2008. Marginalization Social Exclusion and Health. Foundation Regenboog AMOC, Correlation Network. The Netherlands. P. 6-10.

<sup>200</sup> Kanbur, R. 2007. Conceptualizing Economic Marginalization. Margins Conference Cape Town.

The group is unable to participate in democratic decision-making because of its political marginalisation. They are denied access to all the benefits of society, including economic and political participation. Women, members of underrepresented groups, migrants, individuals with disabilities, the elderly, and people of colour are all negatively impacted by the lack of political representation in their communities.<sup>201</sup>

#### **4.4 Responsible Reasons for Marginalization in India Conjointly West Bengal:**

Intentional or accidental, marginalisation is present in many facets of Indian society. There are several outside influences at play in this process. Many people in West Bengal and the rest of India experience discrimination because of their social, cultural, ethnic, economic, caste, creed, or class status. All of these things combine to make the population that comprises ethnic, linguistic, and religious minorities particularly vulnerable. If we analyse the present scenario of West Bengal as well as India, we see the marginalized individuals or communities generally become the victim of a crisis of identity. Marginalization causes widespread poverty in India. Exclusion, globalisation, displacement, and disasters (both natural and man-made) are all contributing reasons to and drivers of marginalisation in West Bengal and across India.<sup>202</sup>

**Exclusion:** In order to improve chances and results for those who are "in the centre," marginalisation is a manner that denies them to those "living on the edges." Exclusion from society and prejudice only become more entrenched as marginalisation progresses. They are a violation of human rights and an insult to humanity. Numerous cultures and groups are shut out of economic and social advancement because of caste and class discrimination in many communities across the world.<sup>203</sup>

**Globalization:** When it comes to development, globalisation is a hotly disputed topic, with advocates on both sides of the issue. When it comes to marginalisation, globalisation certainly has had an impact. Increased openness as a result of

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<sup>201</sup>Oskarson, M. 2010. Social and Political Marginalization in Hard Times. American Political Science Association (APSA) annual meeting in Washington D. C. USA.

<sup>202</sup>Ciaian, P. and Kance, A. 2016. Causes of the Social and Economic Marginalisation: The Role of Social Mobility Barriers for Roma. Luxembourg: Publications Office of the European Union. P. 1-4.

<sup>203</sup> Mathieson, J. et al. 2008. Social exclusion literature review. P. 4-6. Retrieved from [https://www.who.int/social\\_determinants/media/sekn\\_meaning\\_measurement\\_experience\\_2008.pdf?ua=1](https://www.who.int/social_determinants/media/sekn_meaning_measurement_experience_2008.pdf?ua=1). Accessed on 17/09/2018.

globalisation has fostered progress but at the expense of equality. It is hypothesised and investigated that globalisation has increased marginalisation by widening the gap between the well-off and the poor. It's true that India and China, the world's two most populous countries, are among globalization's biggest winners, but the benefits aren't spread evenly throughout the world's developing nations.<sup>204</sup>

**Displacement:** Forcible population relocation is a result of development projects initiated by governments worldwide. Displacement of large numbers of tribal, impoverished, minority, and weaker sections is a continuous and predictable outcome of government-enforced development initiatives and the ever-increasing building of development projects. As a result, those who were previously on the margins of society are further pushed to the edge.<sup>205</sup>

**Disasters:** Natural disasters pose a global threat to human progress. Vulnerability, on the other hand, is linked to more systemic problems in society. The combined effects of three broad categories of disasters are upsetting. Disasters, both natural and man-made, are a widespread occurrence and a major barrier to progress everywhere. There are three distinct categories of catastrophic events: There are three types of disasters: natural, human-caused, and social.<sup>206</sup>

Earthquakes, tornados, ice storms, floods, landslides, volcanic eruptions, hurricanes, wildfires, disease outbreaks, and insect infestation are natural disasters. On the other hand, it can be correlated with advances in technology, i.e., bombs, unexploded ordinance, chemical spills, radioisotope pollution, and incidents in transportation. All accidents involving carcinogens, mutagens, or heavy metals are included as well. Bridges, trains, automobiles, high-rise buildings, power plants, dams, mines, pipelines, and all offer risks due to the potential for structural failure. Hostage-taking, demonstrations, strikes, mob rushes, and stampedes all fall under the

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<sup>204</sup>Beall, Dr J. 2002. Globalisation and Social Exclusion in Cities: Framing the Debate with Lessons from Africa and Asia. London School of Economics and Political Science. P. 2-10

<sup>205</sup> Kagan, C. And Mark H. B. 2005. Marginalization. P. 52-54. Retrieved from <https://www.researchgate.net/publication/318604829>. Accessed on 17/09/2018.

<sup>206</sup>Robinson, W. C. 2003. Risks and Rights: The Causes, Consequences, and Challenges of Development Induced Displacement. The Brookings Institution-SAIS Project on Internal Displacement. P. 6-15.

category of human tragedy. So do bombs, shootings, and hostage-taking, all of which are acts of terrorism.<sup>207</sup>

#### **4.5 Various Marginalized Groups India Conjointly West Bengal:**

There are marginalised groups comprised of some of society's most defenceless members in virtually every society. In India conjointly with West Bengal, marginalized groups nowadays face difficulties for example poverty, unemployment, illiteracy, ill-health, uncertainty, ignorance, powerlessness, and social segregation. Deprivation and poverty have a significant role in strengthening this social process. India is one of the postcolonial nations of the world that suffers from a high degree of human deprivation. It is also true that marginalized groups nowadays just become vote banks for the political parties in India conjointly West Bengal. Marginalization affects not only the economic and physical but also the mental health of oppressed people, as they are continuously dominated in society. After the above discussion it can be said that there are certain characteristics of marginalized groups in India for example:

- Marginalized groups undergo discrimination and subordination.
- Assuming the marginalized group's achievement is not based on merit.
- Marginalized communities have a unified sense of belonging and comparable hardships.
- Who belongs and who does not belong is determined by social norms accepted by marginalised groups?
- Marginalized communities have distinguishing physical and cultural characteristics that are disapproved of by higher castes or dominant groups.
- Marginalized groups tend to marry within the group.

Marginalization occurs when societal progress is haphazardly organised or led. Nomadic tribes, Dalits, Adivasis, Schedule castes, Muslims, women, slum and pavement dwellers, the crippled and elderly, and those living in rural places are all examples of disadvantaged groups in India's social systems.<sup>208</sup> Most vulnerable marginalized groups in India conjointly West Bengal can be summarized as below:

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<sup>207</sup>Smith, O. 2018. Disasters and Large-Scale Population Dislocations: International and National Responses. Oxford Research Encyclopaedia of Natural Hazard Science. P. 12-26.

<sup>208</sup> David, R. C. 2001. Social Development and the Empowerment of Marginalized Groups. Sage publication.

**Women:** The exclusion of women from certain jobs and occupations is a manifestation of the marginalisation of women that results from the interplay of certain cultural, historical, legal, religious, and economic situations. Women in India have suffered multiple oppressions, historically and in the postcolonial era. Indian women are subject to discrimination not just based on gender but based on numerous other factors for example caste, religious affiliation, community, and class. Women, form about half of the population of India, but their condition has been horrendous. In the name of religion and socio-cultural practices, they were purposely denied growth opportunities. Once again, women were victims of widespread analphabetic, loneliness in the dark and grim rooms in the name of Purdah, indeterminable widowhood, forced child marriage, the rigidity of obedience and resistance to the remarriage of widows turning many of them into prostitutes, polygamy, female infanticide, abuse and the power to obey SATI and complete denial of autonomy.<sup>209</sup> Besides, the economic dependence, there is also a heavy domestic workload, absence of career and mobility, no recognition of their economic contribution, monotonous jobs, and poor work conditions.<sup>210</sup> Violence against women, such as bride burning, rape, and unrelenting physical and psychological abuse within and beyond the family, coexists with the oppression and invisibility that women experience in public life.<sup>211</sup> With the rise rather than reduction of these challenges to women's equality, the movement is questioning contemporary processes of development, especially the patriarchy encoded in the development of moderns.<sup>212</sup>

**People with Disabilities:** India has some 40 to 80 million persons with disability.<sup>213</sup> It is estimated that 2.21 percent of India's entire population of 121 billion people, or 2.68 billion people, are deemed to be "disabled." Between 2001 and 2011, the number of people living with impairments increased, and this trend was seen in both rural and urban regions and in men and women of both sexes. Disabled people have fought against centuries of prejudice, harmful generalisations, and unfounded fears based on flawed assumptions and false premises. Disabled people have been severely

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<sup>209</sup>Dhanda, P. 2012. *Violence Against Women*. Rosa Publishers, Rajasthan, India.

<sup>210</sup>Kumar, V. 2011. *Status of Other Backward Classes in India*. Delhi: Alfa Publications. P 110-118.

<sup>211</sup>Ibid. P. 75-80.

<sup>212</sup>Enarson, E. 1999. *Violence Against Women In Disasters: A Study Of Domestic Violence Programs In The United States And Canada*. *Violence Against Women*, Vol. 5. P. 742-768.

<sup>213</sup>Disability in India. Retrieved from <https://thewire.in/health/persons-with-disabilities-challenges-india>. Accessed on 17/09/2018.

impoverished for decades due to the social and economic marginalisation that has resulted from the rejection of disability. People with disabilities must be fully integrated into society by addressing stigma, disabled adults must be equipped with employable skills, and they must be encouraged to be employed by the private sector.<sup>214</sup>

**Elderly:** The process of ageing is inevitable and cannot be avoided. They are especially at risk because of their reliance on their spouses and offspring for financial support, which is exacerbated by the fact that older people are more likely to suffer from disease and infirmity. However, other factors, such as smaller family sizes due to the affirmation of a tiny family standard and thus increasing reliance, the migration of younger family members to cities in search of alternative sources of living, the severe shortage of housing in urban areas, and high rents, serve as a strong significant deterrent to bring aging relatives to reside with their children.<sup>215</sup> As a result of education, urbanisation, westernisation, and industrialisation, among other things, the standing of an aged citizen in India has been gravely eroded by issues such as shifting ideals, greater independence, and growing demands for consumer products.<sup>216</sup> Again elderly aging citizens are increasingly getting marginalized due to digital illiteracy, a new survey has revealed. The drug ranks as the highest unmet need among the basic needs of the elderly. The ageing population is society's top priority when it comes to healthcare because of the myriad health problems that come with old age.<sup>217</sup>

**Ethnic minority:** The term "minority" comes from the Latin word "minor" with the suffix "ity," meaning "little in number." India is a colourful tapestry of ethnic groups with distinct customs and faiths assimilating. Diversity in race, culture, religion, etc. allows for the existence of numerous ethnic groups that live inside one nation yet have diverse social customs and traits. The word ethnic minority relates to underprivileged individuals of a similar species or ethnicity who have a separate culture. According to India's sociology, a minority, whether linguistic or religious, can only be determined

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<sup>214</sup>Saksena, D. 2014. The Problems of Marginalized Groups in India. *International Journal of Research in Social Sciences*. P. 2-6. Retrieved from <https://www.lawctopus.com>. Accessed on 17/09/2018.

<sup>215</sup>Chattoraj, B. N. 2002. Problems of Senior Citizens in a Changing Society: An Indian Perspective. *Social Defense*, A quarterly journal, National Institute of Social Defence, Ministry of Social Justice & Empowerment Government of India. New Delhi. Vol. 53, No. 152 P.35.

<sup>216</sup> Ibid. P. 45-49.

<sup>217</sup>Pekovic, V. et al. 2007. Planning For And Responding To Special Needs Of Elders In Natural Disasters. *Generations*. vol. 31, P- 36-42.

using the State's demographics, not the entire countries.<sup>218</sup> Essentially, all ethnic and linguistic minorities have been referred to by the Indian Constitution. In sociology, a minority is any population group that does not represent a significant political majority. Any group that is significantly below average in terms of social standing, employment, money, education, or political influence in comparison to the dominant group is fair game for this analysis. Ethnic minorities are a fact of life in any advanced civilization.<sup>219</sup> They may be nomads, indigenous or landless people, or religious minority. Other Backward Class (OBC) is a group of Indian people other than SC and ST (ST). This socially, culturally, and financially disadvantaged minority is eligible for public sector job and education reservations. Non-Creamy Layer (OBC-A) and Creamy Layer are two OBC lists (OBC- B). Non-Creamy Layer (OBC-A) is the poorer, less-educated OBC class.<sup>220</sup>

**Caste Groups:** Throughout Indian history, the scheduled castes and scheduled tribes have represented those at the very bottom of the country's social and economic ladder. The caste system in India is a rigid social hierarchy based on the concepts of ritual purity and impure social status. The highest social caste, the Brahmins, is at the top, while the lowest caste, the Shudras or Dalits, are considered the lowest. Civil, social, political, economic, and cultural rights are all threatened by the systematic exclusion of Scheduled Castes. The Scheduled Castes have dismal statistics for education, income, and living conditions.<sup>221</sup>

Scheduled castes suffer widespread discrimination and torture at the hands of police and upper-caste groups that get governmental protection. In India, for instance, women from the Scheduled Castes and the Dalit community face heightened risks of sexual assault because of their social standing. The difficulty is in bringing about a positive transformation under conditions this harsh. Caste-based marginalisation is

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<sup>218</sup>Bolin, B. 2007. Race, Class, Ethnicity, and Disaster Vulnerability. In Handbook of Disaster Research. New York: Springer.

<sup>219</sup> In India, the term "minority" is used in a generic sense to refer to non-Hindu populations, while it has several different connotations. Minorities can be categorised according to their religion, the language they speak, their caste, their tribal status, and so on. According to Section 2(c) of the National Commission for Minorities (NCM) Act, 1992, the minority communities recognised by the Indian government include Muslims, Christians, Sikhs, Buddhists, Zoroastrians, and Jains. Retrieved from <https://blog.ipleaders.in/minority-protection-laws-india>. Accessed on 19 09 2018.

<sup>220</sup> David, S. J. 2002. *The Minority Rights Revolution*. Cambridge, Mass.: Belknap Press of Harvard University Press.

<sup>221</sup> Ritzer, G. 2014. *Essentials of sociology*. Los Angeles.

one of today's world's most serious human rights problems. However, in recent years, the enthusiasm for caste-based marginalization is diminishing due to encouraging action and legal security. Scheduled Castes and indigenous peoples of West Bengal and the rest of India continue to be subject to discrimination, marginalisation, and acts of communal violence. Because of this, Indian government rules and policies offer a solid foundation for safety, but they are not always strictly enforced by local authorities.<sup>222</sup>

**Tribes:** However, the marginalisation of India's Scheduled Tribes is based on their ethnicity rather than their caste status. Discrimination against the Scheduled Tribes, including the Scheduled Castes, is institutionalised in Indian society. From a historical perspective, they have been victimised by the worst kind of societal assimilation. Most members of the Scheduled Tribes do not own any property and have little say over natural resources like farmland, forests, or water supplies. They make up a disproportionate share of workers in sectors including plantations, agriculture, and manufacturing, which has led to lower incomes, less educational opportunities, worse health outcomes, and fewer resources dedicated to caring for them. They're at the bottom of society economically and medically.<sup>223</sup> In a nutshell, they are cut off from the conveniences of civilised life and lack access to basic services. Multiple studies have found that the most vulnerable Scheduled Tribe members in today's India include women, children, the elderly, those with HIV/AIDS, mental illness, and disabilities. It appears that many of them are also victims of human trafficking, forced prostitution, and marriages at a young age.<sup>224, 225</sup> However, due to positive action and increased legal stability, support for caste-based marginalisation has been dwindling in recent years.

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<sup>222</sup>Young, J. 1999. The exclusive society. Sage publication.

<sup>223</sup> Scheduled Tribe status in India. Retrieved from <https://www.tribal.nic.in/Committee.aspx>. Accessed on 20/09/2018.

<sup>224</sup> Tewari, R. 2015. Socio-Economic Caste Census: In Villages, One in Three Households in Poverty; Over A Fifth SC/Sts. New Delhi: The Indian Express.

<sup>225</sup> Scheduled castes and scheduled tribes. Retrieved from <http://censusindia.gov.in/Census And You/scheduled castes and sceduled tribes.aspx>. Accessed on 20/09/2018.

#### **4.6 Selected Marginalized Groups Area for my Research and Their Present Situation:**

After the above discussion, it is clear that there are many types of marginalization. What the different situations have in common are. In this study, I had selected Scheduled Cast, Scheduled Tribe and Other Backward Class (SC, ST and OBC-A & OBC-B) as a marginalized group.

##### **a. Statistical scenario:**

Twenty percent of India's overall population belongs to Schedule castes. This indicates that around 26 percent of the population of India belongs to the SC minority. Therefore, the government sector issues 15 percent quotas. 9 percent of the population is comprised of Scheduled Tribes. This indicates that there are around 11.7 percent corers in the population and 7.5 percent quotas in the government sector. 41% of the total population belongs to other backward castes. This means that they are almost 53.3 corers in the population and 27 percent quota in the government sector.<sup>226</sup> From a total population of around 8 Corers in 2001, Census data indicates that 5.5% (44 Lakh) of West Bengal's population is made up of STs, while 23.02 percent (1.845 Corer) are classified as SCs. Despite the lack of a census for the OBC community, it is believed that 39% of all American identify as OBC.<sup>227</sup> One in ten Muslims worldwide live in India. 172 million Muslims are believed to reside in India (2011 census). In the 2011 India Census, Muslims made up 27.1% of the population of West Bengal. This equates to more than 24.6 million people. In the Malda District, 835,430 people identify as members of the SC group and 313,984 as members of the ST group, according to the 2011 census data, but no data were collected on the OBC population.<sup>228</sup> As per the 2011 census, Malda District Bengali Muslims population is majority about 51.27% of District population.

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<sup>226</sup> How much of the population of India belongs to a category, be it SC, ST or OBC? Retrieved from <https://www.quora.com/How-much-of-the-population-of-India-belongs-to-a-category-be-it-SC-ST-or-OBC>. Accessed on 20/09/2018.

<sup>227</sup> SC, ST and OBC Population in West Bengal Retrieved from <https://www.quora.com/What-is-the-OBC-population-of-West-Bengal>. Accessed on 20/09/2018.

<sup>228</sup> SC, ST and OBC Population in Malda District Retrieved from <http://malda.gov.in/Disprof.htm>. Accessed on 20/09/2018.

### **b. Deprivation, Poverty and Social Status:**

SC, ST, and OBC make up the majority of India's population. Caste implies social stratification. Caste-based societies have rigorous birth-based occupational privileges, rigid endogamy-based caste identities, and limited social mobility. Scheduled Castes, Scheduled Tribes, and Other Backward Classes are disadvantaged and exploited. STs have been neglected and persecuted in Indian society due to their socio-cultural and geographical isolation.<sup>229</sup> Muslim OBC-A, a religious minority community, face marginalisation, prejudice, and oppression. India marginalises Muslims. According to surveys, empirical research, and case studies, exclusion, intolerance, and marginalisation of Muslims in general and Muslim women in particular are serious challenges. SCs, STs, and OBCs are denied social and economic chances. Social stratification governed access to public resources, institutions, and requirements. The caste system legitimised neglect and deprivation and justified SC, ST, and OBC marginalisation and discrimination.<sup>230</sup>

### **Significant of the Empowerments and constitutional safeguards for the SCs, STs and OBCs:**

The term "empowerment" refers to the process through which marginalised individuals gain access to previously inaccessible resources and opportunities, either through their own efforts or with the support of others who are not marginalised. Power distribution is not a mechanised operation. It necessitates radical shifts in social and economic structures, as well as in political and cultural norms and customs. Empowerment helps to create a new collective identity and provides the required space for their intervention in every issue of the marginalized group. Empowerment also helps to ensure the essential enabling provision to every member of the marginalized group required for their self-fulfilment and expression. Historical socio-structural denial of chances and freedoms in India has resulted in unusually low participation of SCs, STs, and OBCs in several spheres of public life. With the adoption of a social-democratic administration in India, constitutional principles were enacted to promote the inclusion and development of Scheduled Castes, Scheduled Tribes, and Other Backward Classes. Constitutionally, India is a secular state with the

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<sup>229</sup>Chattopadhyay, A. 2013. Poverty and Social Exclusion in India: Issues and Challenges. Rawat Publications, New Delhi.

<sup>230</sup>Ibid. P. 51-57.

goal of promoting religious tolerance and communal peace.<sup>231</sup> Political parties in India appeal to the emotions of constituents from various communities by promising to preserve the rights of SCs, STs, and OBCs.

There are a variety of clauses included in the Constitution of India that each serves to protect the rights of SCs, STs, and OBCs.<sup>232</sup> The constitutional preamble declares India a secular state.<sup>233</sup> Article 15 makes it illegal to discriminate against someone on the basis of their race, caste, religion, sex, descent, place of birth, or place of residency.<sup>234</sup> In addition, any sort of discrimination in regard to public employment is prohibited on the basis of religion, caste, language, race, and so on, according to Article 16 of the Constitution.<sup>235</sup> In the case of government departments, this ensures equal employment opportunities for all Indian people.

The freedom to publicly declare, practise, and propagate one's religious beliefs is a basic right in India, as protected by Article 25 of the country's constitution. In this article, members of the SC, ST, and OBC groups are guaranteed the freedom to practise their religions without discrimination so long as they do not threaten the safety, morals, or health of others.<sup>236</sup> However, the state is able to control the secular activities that are related with religious practises. These activities include political and economic activities as well as financial activities.<sup>237</sup> The management of religious and charitable institutions; the ownership, acquisition, and administration of movable and immovable property; and the exercise of other religious rights are all protected under Article 26.<sup>238</sup> Once, public order, morality and wellbeing are subject to that right.

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<sup>231</sup> Vijay Jaiswal, Rights of Minorities in Indian Constitution, Important India. Retrieved from <http://www.importantindia.com/2182/rights-of-minorities-in-indian-constitution>. Accessed on 26/09/2018.

<sup>232</sup> Sinha, M. K. 2005. Minority Rights: A Case Study of India. International Journal on Minority and Group Rights. Vol. 12, No. 4. P. 355-374.

<sup>233</sup> Preamble, Constitution of India. Retrieved from [https://en.wikipedia.org/wiki/Preamble\\_to\\_the\\_Constitution\\_of\\_India](https://en.wikipedia.org/wiki/Preamble_to_the_Constitution_of_India). Accessed on 16/10/2018.

<sup>234</sup> Article 15, Constitution of India. Retrieved from [https://en.wikipedia.org/wiki/Fundamental\\_rights\\_in\\_India](https://en.wikipedia.org/wiki/Fundamental_rights_in_India). Accessed on 16/10/2018.

<sup>235</sup> Article 16, Constitution of India. Retrieved from <https://blog.ipleaders.in/right-to-equality-article-16-17-18>. Accessed on 16/10/2018.

<sup>236</sup> Article 25, Constitution of India. Retrieved from <https://blog.ipleaders.in/right-to-freedom-of-religion-articles-25-28>. Accessed on 16/10/2018.

<sup>237</sup> Ibid.

<sup>238</sup> Article 26, Constitution of India. Retrieved from <https://www.gktoday.in/gk/articles-25-28-and-right-to-freedom-of-religion-in-india>. Accessed on 16/10/2018.

Article 27 forbids any duty on people to pay taxes, the revenues of which are to be appropriated to support the religion in question.<sup>239</sup> Article 29 of the Constitution stipulates that no student shall be excluded from a school because of his or her race, language, religion, or caste and also protects the citizen's right to use and keep his or her native script and cultural practices.<sup>240</sup> The preservation of OBC-A and minority rights in India is largely dependent on the implementation of Article 30. This grants minorities the right to set up and manage educational institutions, and the State has been barred from intervening in matters of assisting these institutions.<sup>241</sup> But the State will control such educational institutions. Although this article makes use of the word "minorities," the Indian Constitution has not provided any meaning. In different cases, the judiciary has sought to focus on this matter. Articles 15, 15(4), 16(4), 16(4A), and 17 of the Bill of Rights guarantee that no one will be treated unfairly in school or on the job. These provisions also explicitly outlaw untouchability and encourage positive discrimination in hiring and advancement.

Every one of India's constitutionally mandated directive principles—from "Right to work" to "duty to increase the quality of life" to "protection of childhood" to "living wage"—is intended to help those who are "marginalised" due to factors like religion, poverty, caste, and so on.<sup>242</sup> Article 46 of the Directive Principles of State Policy (DPSP) directs the state to protect the weaker sections (SCs/STs) against exploitation and marginalisation. Articles 320, 335, 338, 338A, and 340 also include and create weaker portions.<sup>243</sup>

Incorporating Article 21-A through the 2002 amendment was an important step toward empowering previously marginalised groups in society. It stipulates that all children between the ages of 6 and 14 attend school for free, and it states that

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<sup>239</sup> Article 27, Constitution of India. Retrieved from <http://notesforfree.com/2017/12/16/article-27-constitution-india-notes>. Accessed on 20/10/2018.

<sup>240</sup> Article 29, Constitution of India. Retrieved from <https://www.gktoday.in/gk/article-29-30-cultural-educational-rights-in-indian-constitution>. Accessed on 20/10/2018.

<sup>241</sup> Article 30, Constitution of India. Retrieved from <http://www.usig.org/countryinfo/laws/India/The%20Constitution%20of%20India%20Article%2030.pdf>. Accessed on 20/10/2018.

<sup>242</sup> Johari, J. C. 2004. *The Constitution of India: A political- Legal study*. Sterling Publishers Pvt. Ltd. New Delhi-110020.

<sup>243</sup> Bakshi P. M. 2006. *The Constitution of India*. Universal law publishing company Pvt. Ltd.

attendance is mandatory.<sup>244</sup> Unless required by the rules of the endowment or trust that established the institution, Article 28 prohibits the use of public funds for religious instruction in schools. It also protects students' freedom to opt-out of any required religious education at their school.<sup>245</sup> It was widely believed that education was a powerful tool in the fight against caste norms and for expanding access to opportunities and liberties for marginalised groups. However, the caste system's impacts and practises were not eliminated from the educational system as a social and cultural institution. There are several examples in Indian society of the social isolation and lack of educational possibilities faced by SCs, STs, and OBCs on a widespread scale. It has been rightly acknowledged that the education sector must be the starting point for greater societal transformations.

### **Significant Role of the Constitutional Safeguards for the SCs, STs and OBCs students:**

Different reforms encouraged SCs, STs, and OBCs' educational engagement and progress. Constitutional mandates for positive discrimination and preferential treatment have a significant role. Large-scale surveys (census) found SC, ST, and OBC under-participation and marginalisation in schooling, requiring corrective efforts. Steps included reservation/quota in enrolment, remedial coaching/aid, financial help, midday food, school uniforms, and more. With time, the number of educational institutions (including schools and universities) and the ratio of SC, ST, and OBC enrolment has increased dramatically. New reform measures and greater education spending are accompanied by new policies and programmes for poorer educational sectors. In view of these tremendous changes and improvements in education, this research aims to determine the educational status of SCs, STs, and OBCs.<sup>246</sup>

In Malda district, which has been described as a "mixing pot" of cultures, tensions between groups often boil over, increasing the risk of violence and sparking

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<sup>244</sup> Article 21(A), Constitution of India. Retrieved from <https://mhrd.gov.in/rte>. Accessed on 20/10/2018.

<sup>245</sup> Article 28, Constitution of India. Retrieved from <https://www.youthkiawaaz.com/2017/05/article-28-of-the-constitution-what-is-the-need-to-mix-religion-with-education>. Accessed on 20/10/2018.

<sup>246</sup> Laskar, M. H. 2010. Rethinking Reservation in Higher Education. *ILI Law Review*. P. 29-38.

human rights campaigns. This study illustrates the study usage patterns of mobile phones and the internet among the marginalized college students which means Schedule Cast, Scheduled Tribes, and Other Backward classes (i.e., OBC-A and OBC-B) in Malda District. Marginalization can impair students' psychological, emotional, and physical health, as discussed above. Anger, anxiety, despair, frustration, pessimism, self-doubt, fear, loneliness, uncertainty, and powerlessness are possible responses to marginalisation. Students may face social, economic, and academic hardship due to marginalisation. Limited access to academic spaces, community sites, course materials, course assignments, etc., leads to poor academic performance on examinations and assignments because of negative consequences on focus and mental well-being.

In addition to the rights guaranteed by the constitution, the government of India has periodically enacted new programmes to aid Dalits, the poor, and minorities. These include the National Commission for Backward Class Act,<sup>247</sup> the MANREGA Scheme<sup>248</sup>, the Food Security Act<sup>249</sup>, the Central Skill Board Act<sup>250</sup>, the Policy for the Upliftment of Tribes and the Improvement of the Human Development Index<sup>251</sup>, the Baba Ambedkar Scheme<sup>252</sup>, the Minimum Wage Act<sup>253</sup>, the Labour Laws, and the New Indian Government Scheme for Gender Ratio change "Beti Bachao, Beti Pado" <sup>254,255</sup> etc. In light of these developments, the purpose of this research was to

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<sup>247</sup> National Commission for Backward Classes Act 1993. Retrieved from <https://www.india.gov.in/national-commission-backward-classes-act-1993>. Accessed on 24/10/2018.

<sup>248</sup> The "Mahatma Gandhi National Rural Employment Guarantee Act 2005", (MGNREGA), which also known as National Rural Employment Guarantee Act 2005 is Indian labour law and social security measure that aims to guarantee the 'right to work'. Retrieved from <https://www.latestlaws.com/bare-acts/central-acts-rules/service-labour-laws/mahatma-gandhi-national-rural-employment-guarantee-act-2005>. Accessed on 24/10/2018.

<sup>249</sup> National Commission for backward class Act. Retrieved from <http://dfpd.nic.in/Salient-features-National-Food-Security-Act.htm>. Accessed on 20/10/2018.

<sup>250</sup> Mahatma Gandhi Employment Guarantee Act 2005. Retrieved from [https://en.wikipedia.org/wiki/National\\_Rural\\_Employment\\_Guarantee\\_Act,\\_2005](https://en.wikipedia.org/wiki/National_Rural_Employment_Guarantee_Act,_2005). Access on 22/10/2018.

<sup>251</sup> National Skill Development Policy. Retrieved from <http://www.mp.gov.in/en/web/tribal/objectvs>. Accessed on 24/10/2018.

<sup>252</sup> Baba Ambedkar Scheme Retrieved from <http://ambedkarfoundation.nic.in/html/schemes.html>. Accessed on 25/10/2018.

<sup>253</sup> The Minimum Wages Act 1948 is an Act of Parliament concerning Indian labour law that sets the minimum wages that must be paid to skilled and unskilled labours. Retrieved from [https://en.wikipedia.org/wiki/Minimum\\_Wages\\_Act\\_1948](https://en.wikipedia.org/wiki/Minimum_Wages_Act_1948). Accessed on 25/10/2018.

<sup>254</sup> "Beti Bachao, Beti Padhao" which means Save girl child, educate a girl child, is a personal campaign of the Government of India that aims to generate awareness and improve the efficiency of

investigate the educational, cultural, social, and psychological effects of internet and mobile phone technologies on the lives of underprivileged college students in Malda province.

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welfare services intended for girls which were launched with initial funding of ₹100 corer. Retrieved from [https://en.wikipedia.org/wiki/Beti\\_Bachao,\\_Beti\\_Padhao\\_Yojana](https://en.wikipedia.org/wiki/Beti_Bachao,_Beti_Padhao_Yojana). Accessed on 25/10/2018.

<sup>255</sup> Women Empowerment. Retrieved from <http://www.wcd.nic.in/bbbp-schemes>. Accessed on 25/10/2018.

# *Chapter: 5*

## **Methodological Tools and Data Analysis**

The primary research questions and hypothesis for this analysis are outlined in this chapter. This explains then the approach used to analyse them in this dissertation and presents the data analysis of interviews presented general usage patterns of mobile phone, computer and internet, which linked the following issues such as educational, financial, economic, personal and psychological issues.

### **5.1 Research Questions and Hypothesis:**

The particular research issues explored in this dissertation are outlined in this section, which builds on the theoretical methods and literature evaluation offered in the previous chapter. As was indicated in the prior chapter, a number of researchers have used the uses and gratifications technique in various social and cultural contexts to uncover the numerous needs that young people may be fulfilling through their usage of mobile phones. The purpose of this research was to better understand how marginalised college students in Malda District, use their mobile phones to meet their common communication, media, and age-related requirements. That's why we need to ask, as our first research question for this study:

- **Q. 1. When compared to their more privileged counterparts, how do male and female underprivileged college students in the Malda area often use mobile phones and the internet?**

This research will compare and contrast how male and female economically disadvantaged college students in Malda area utilise mobile phones and the internet. It is well known that West Bengal, like the rest of India, is a patriarchal culture in which male and female members of the community are subject to distinct sets of norms and expectations. While males have more freedom in society, women are nevertheless expected to conform to rules that were established long ago. Women, however, who constitute almost half of the country's population, have historically faced a bleak outlook. Decades of development possibilities have been squandered in the sake of religion and sociocultural practises. Women's literacy in West Bengal, and

India more broadly, is much lower than that of men due to the gender gap in educational opportunities.

- **Q. 2. What is the impact of mobile phones and the internet, particularly in education, social, cultural, and commercial aspects, on the marginalised college students in Malda district?**

Shaping and reshaping social communication as well as social relationships, information technology is playing a major role in modern Indian society. Once again, social network theory examines how the web of connections around an individual, group, or organisation influences their thoughts and actions. This study replicates the entire idea in a small social group of marginalised graduate students from eleven colleges in the Malda district.

- **Q. 3. When it comes to communication, engagement, relationships, and societal developments do mobile phones and the internet operate as hindrances or enablers?**

In the second chapter, we look at a number of sociological models and theories that support the idea that adolescents and young adults in all societies have common experiences in terms of their evolving moral, social, and psychological perspectives. As a result, this research presupposes that young people in India would employ several types of reasoning, including ethical, social-conventional, and personal, when using mobile devices and the internet.

## **5.2 Method of Research Programme:**

This research is intended to be a personal interview and questionnaire-based exploratory study to investigate the cultural usage patterns of mobile phones and the internet among marginalised college students. The study collected basic demographic, motivational, and behavioural characteristics from the respondents. Through various methods that I have used in my thesis, I am using the various processes as much as possible to know the habits and interests in using the mobile phone and the internet among the marginalised college students in Malda district.

### **a. Sampling:**

Sampling, as a statistical approach concerned with the selection of an individual observation that allows us to draw conclusions about the population as a whole, is

central to every research methodology. To define a population, all of its components and variables must be included in the study. However, it is costly and time-consuming to gather as much data. So, with the aid of samples, we make inferences about the population. It's a fixed number of findings that a larger population draws from. [1]

In this research, the participants selected a simple random method. Nine marginalised college students (SC-3, ST-3, and OBC-3) are selected from a college by purposive sampling in the Malda district, which has 11 undergraduate colleges. The total sample size is, therefore, 99. Each of the chosen institutions' administrations gave their approval for the interviews to take place.

### **b. Schedule an Interview:**

A plan is a set of questions to direct an investigator, interviewer, researcher, or researcher with organised responses. It is an investigation strategy or line of reference. There is no change in the order of questions, the language of the questions, or the arrangement of schedule parts. The schedule is generally filled out by the researcher or investigator, who can interpret questions when necessary. A schedule takes place in the specific context of a group or series of questions aimed at obtaining information on a subject. This includes open-ended questions and closing questions. Open-ended questions give the answering respondent considerable freedom. Close-ended questions must be answered by the respondent, simply by ticking, by choosing a response from the set of answers given under the question. The plan, according to Thomas Carson, is nothing more than a list of questions that are required to test the hypothesis.<sup>256</sup>

Participants and I communicated directly, mostly through interview debriefings. Ninety-nine marginalised college students between the ages of 18 and 25 who were enrolled in one of eleven different schools in Malda District at the time of the interview agreed to talk with me over the phone. There are a total of 149 participants; 49 are female and 50 are male. There was a total of 98 questions asked during interviews (a mix of open-ended and closed-ended inquiries with numerous follow-up probes thrown in). To learn more about the participants' reactions, we did that. I have tried my best to use easy and simple language in my question so that the students can

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<sup>256</sup> Stolley, S. K. 2005. *The Basics of Sociology*. Greenwood Press. Westport, Landon.

understand my question easily and can answer it comfortably. As a result, interviews may be conducted more easily, and more reliable data can be gathered. There is a greater chance that the interview and its findings will be skewed by the prejudice of the interviewer because he is the one who chooses the questions to be asked during the interview. The entire interview was taped, and I also kept a field journal. Beginning in September 2017, interviews lasted through March 2018. For reasons of study ethics, I am unable to use the participants' real names in this context.

#### **c. Observation:**

Data can be gathered by observation, as suggested by the term itself. Since my research is a correlational study (rather than an experiment), I conducted it through the observational phase. Again, the advantages of the observation data collecting approach include having immediate access to the phenomena under study, a great deal of flexibility in terms of how the method is implemented, and the development of a record of the phenomena for future reference. In order to properly collect data through observation, researchers often refer to this method as "participatory research" or "observational ethnography." [1] In participant observation, I intervene in the environment and behaviour which involves a thorough descriptive analysis of a single individual in my research. A few students were not interested in replying to some of my questions. I have found the reply and noted observing their appearance as long as possible. So, I have to undergo both the interview and observation procedures to complete the question-answer part of the interview.

#### **d. Data collection:**

In order to answer pertinent questions and analyse results, one must first collect data in a clear, methodical manner concerning certain factors. Data collecting is widely used for research purposes across all academic disciplines, from the hard sciences to the humanities to business. Even though the methods change from field to field, the main goal is always to make sure that the data is collected accurately and honestly.[1]In this study, I have collected both primary and secondary data in reference sources. Primary data was collected from the respondents with the help of an interview, while secondary data was collected from other traditional sources like web sources, published printed materials, etc.

### 5.3 Data Analysis:

To summaries, retrieve, and analyse data to discover usable information, develop conclusions, and aid decision-making, data analysis is the systematic use of statistical and/or logical procedures. [1] In this context of data analysis, it presents the results of the interview analysis step by step in the following sections.

- ◆ **Section- A** presents the information on participants regarding their demographics.
- ◆ **Section- B** presents the general usage pattern of mobile phones.
- ◆ **Section- C** presents the general usage pattern of computers and the internet.
- ◆ **Section - D** presents the data regarding the usage pattern of internet and mobile phone for the educational purposes.
- ◆ **Section- E** presents the data analysis regarding the usage pattern of the internet and mobile phones in the social aspect.
- ◆ **Section- F** presents the data analysis regarding the usage pattern of internet and mobile phones for entertainment purpose.
- ◆ **Section- G** presents the data analysis regarding the usage pattern of the internet and mobile phones for commercial purpose.
- ◆ **Section - H** presents the data analysis on health issues due to the use of the internet and mobile phones.
- ◆ **Section - I** presents the data analysis on the psychological and personal issues due to the use of the internet and mobile phones.

#### **Section - A: Demographic Information**

This question was designed to find out about the respondent's personal history, since it may have bearing on how they used their mobile devices and the web. The interview-based questionnaire asked participants information about their student status, monthly family income, living status, caste, and religion. The medium of the institution of all the respondents, irrespective of SC, ST, and OBC, is Bengali. Most of the respondents live in rural areas, which play an important role in maintaining the cost of English-medium schools. As a result, it appears that all of the respondents in the college speak Bengali.

**Table No. 5.1: Place of Residence and Sex Distribution of marginalized College Students.**

| Category     | Total      | Panchayat  |            | Municipality |            |
|--------------|------------|------------|------------|--------------|------------|
|              |            | Male       | Female     | Male         | Female     |
| SC           | 33(33.33%) | 12(12.12%) | 10(10.10%) | 4(4.04%)     | 7(7.07%)   |
| ST           | 33(33.33%) | 10(10.10%) | 14(14.14%) | 7(7.07%)     | 2((2.02%)  |
| OBC          | 33(33.33%) | 16(16.16%) | 12(12.12%) | 1(1.01%)     | 4(4.04%)   |
| <b>Total</b> | 99(100%)   | 38(38.38%) | 36(36.36%) | 12(12.12%)   | 13(13.13%) |

Source: Based on primary data collection.

The above table shows that among 99 students, 22.22% of SC (Scheduled Caste) students live in the Panchayat area and 11.11% live in the Municipality area. Among the ST (Scheduled Tribe) category, 24.24% of students live in the Panchayat area and 9.09% are from the Municipality area. Overall, 28.28% of students are from the Panchayat area, and 5.05% are from the Municipality area. 74.74% of students are from the Panchayat area, among whom 38.38% of students are male and 36.36% of students are female. On the other hand, 25.25% is from the municipality area, where 12.12% are male and 13.13% are female students. It is observed that most of the respondents belong to the village and the male-female ratio is almost the same in both places.

**Table No. 5.2: Monthly family income of college students.**

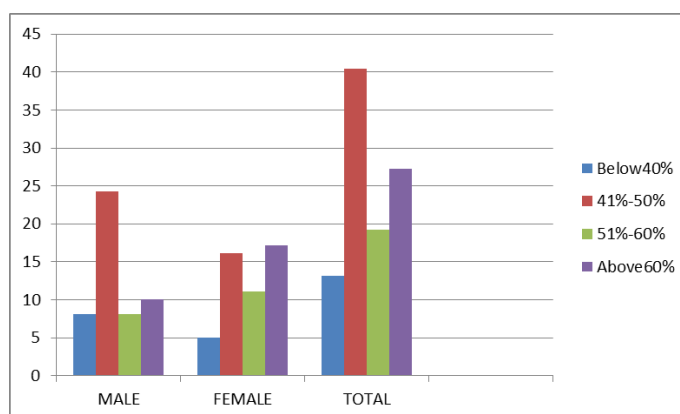
| Category     | Total      | Below 5000/- | Rs.5001-10000 | Rs. 10001 above |
|--------------|------------|--------------|---------------|-----------------|
| SC           | 33(33.33%) | 8(8.08%)     | 17(17.17%)    | 8(8.08%)        |
| ST           | 33(33.33%) | 5(5.05%)     | 26(26.26%)    | 2(2.02%)        |
| OBC          | 33(33.33%) | 14(14.14%)   | 14(14.14%)    | 5(5.05%)        |
| <b>Total</b> | 99(100%)   | 27(27.27%)   | 57(57.57%)    | 15(15.15%)      |

Source: Based on primary data collection.

From table no. 5.2, we can realise the monthly family income of SC, ST, and OBC students. Monthly family income below 5000/-is 8.08% of SC, 5.05% of ST, and 14.14% of the OBC category. 5000 to Rs. 10000 is 17.17% of SC, 26.26% of ST, and 14.14% of OBC. Above Rs. 10,000 is 8.08% of SC, 2.02% of ST, and 15.15% of OBC category students' monthly family income. The above distribution indicates that family incomes of the students are very poor and the monthly income of a few students' families is above Rs. 10,000. Again, when we calculate the student performance in the last exam, we see in Chart No. 5.1 that among the respondents, 40.40% of students gained 40-50% marks and 27.27% of students gained above 60% marks in the last examination. On the other hand, the highest number of students'

performances is between 40 and 50%. Besides, OBC students are found to be more advanced in getting above 60% marks. The following chart indicates that numbers of girls are the majority in the highest scoring categories, and on the other hand, the number of boys is the majority in the lowest scoring categories.

**Chart No. 5.1: Students perform in the last exam.**



N=99

Source: Based on primary data collection.

### **Section - B: General Usages Pattern of Mobile Phone**

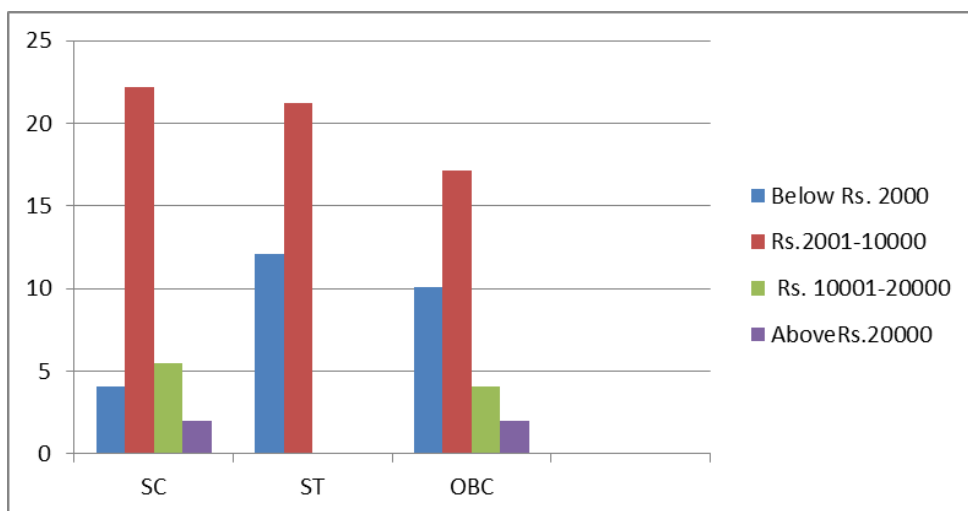
Almost all college students use a mobile phone (98.98%). So, no doubt, it is a grand success of mobile invention for the modern world. On the other hand, 1.01% of students do not use a mobile phone because they have recently lost their mobile phone. Among 99 respondents, 94.94% were single mobile phone users. Each SC, ST, and OBC student uses at least one mobile phone. Only 5.05% of SC students use two mobile phones. Perhaps the main reason for having more than one mobile phone is financial circumstances. On the other hand, the purpose of two mobile phones being used is for different features and different sim connections.<sup>257</sup>

The mobile price is indicated on Chart No. 5.2. In this context, it is also noteworthy that, despite the fact that nearly all of the students are from rural areas, the majority of the students use mobile phone sets ranging from Rs. 2001 to Rs. 10,000. The use of mobile phones costing more than Rs. 20000 is non-existent among ST students, but

<sup>257</sup>Source: Based on primary data collection.

some students in the SC and OBC categories do. That means most of the students in SC and OBC are using expensive mobile phones.

**Chart No.5.2: Respondent's mobile phone prize.**



N=99

Source: Based on primary data collection.

My collected data in table No. 5.3 shows that the majority of respondents call through their mobile phones for less than 30 minutes. On the other hand, one-hour to two-hour mobile phone users are also good numbers. Two hours to three hours and above three hours, users are not negligible. Considering all the aspects, it is clear that the average mobile phone use among respondents is below thirty minutes.

**Table No. 5.3: Respondents per day of mobile phone use (only call purpose).**

| Category     | Total           | Less than 30 M.   | 31M- 1 H.         | 61M. – 2H.        | 121M. - 3H.       | More than 3 H.    |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| SC           | 33(33.33%)      | 13(13.13%)        | 11(11.11%)        | 2(2.02%)          | 5(5.05%)          | 2(2.2%)           |
| ST           | 33(33.33%)      | 9(9.09%)          | 2(2.02%)          | 17(17.17%)        | 2(2.02%)          | 3(3.03%)          |
| OBC          | 33(33.33%)      | 12(12.12%)        | 6(6.06%)          | 3(3.03%)          | 6(6.06%)          | 6(6.06%)          |
| <b>Total</b> | <b>99(100%)</b> | <b>34(34.34%)</b> | <b>19(19.19%)</b> | <b>22(22.22%)</b> | <b>13(13.13%)</b> | <b>11(11.11%)</b> |

Source: Based on primary data collection.

When asked the students which services are mostly used on their mobile phones, then it is seen that voice call users stand first and camera users stand second. Internet users

and SMS users are in third and fourth place, respectively, among SC, ST, and OBC respondents. Besides, considerable numbers of respondents are using mobile phones for FM radio and gaming purposes. Table No. 5.4 mentions the above.

**Table No. 5.4: Respondents variety of usages of mobile phone.**

| Services      | SC  | ST  | OBC | Total |
|---------------|-----|-----|-----|-------|
| Voice call    | 26  | 25  | 21  | 73    |
| SMS           | 20  | 7   | 16  | 44    |
| MMS           | Nil | Nil | 5   | 5     |
| GPRS/Internet | 24  | 19  | 22  | 65    |
| Gaming        | 11  | 7   | 14  | 33    |
| Camera        | 20  | 14  | 19  | 53    |
| FM radio      | 14  | 6   | 18  | 38    |
| Others        | Nil | Nil | Nil | Nil   |

Source: Based on primary data collection.

In the context of usage of mobile phones among marginalised college students, it can be seen (table no. 5.5) that respondents use mobile phones for different purposes. A majority of respondents like to use their mobile phones for voice calls, music, and internet browsing. Furthermore, some respondents use their mobile phones for messaging, photography, and gaming. It can be said that respondents widely use mobile phones for voice calls.

**Table No. 5.5: Most like feature in mobile phone among respondents.**

| Feature           | SC |    | ST |     | OBC |     | Total |
|-------------------|----|----|----|-----|-----|-----|-------|
|                   | M  | F  | M  | F   | M   | F   |       |
| Voice call        | 12 | 8  | 11 | 14  | 8   | 10  | 63    |
| SMS               | 2  | 4  | 2  | Nil | 1   | 5   | 14    |
| Camera            | 6  | 8  | 10 | 8   | 2   | 6   | 36    |
| Video             | 3  | 1  | 5  | 1   | 2   | 2   | 14    |
| Music             | 14 | 10 | 4  | 3   | 9   | 13  | 52    |
| Internet browsing | 13 | 9  | 14 | 6   | 10  | 5   | 56    |
| Gaming            | 5  | 1  | 2  | Nil | 3   | Nil | 11    |

Source: Based on primary data collection.

In the context of per month expenditure on mobile phones, no. 5.6 shows that 36.36% of students spend below Rs.100/- per month for using a mobile phone and 53.63% spend Rs. 101/-to Rs. 200/-per month. 2.02% of students spend only per month, Rs.

2001/-to Rs. 300/- only, but 8.08% students spend per month above Rs. 300/-only. From the above table, it is clear that most of the students spend Rs. 101/- to Rs. 200/- on monthly costs. But there are also some students who are spending more than Rs. 200/- per month, which is also expensive from a student's point of view.

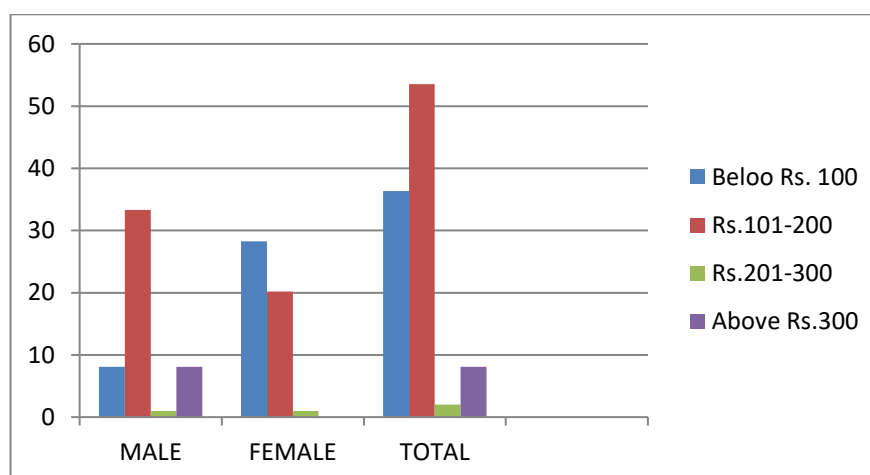
**Table No. 5.6: Per month average expenditure on the cell phone of respondents.**

| Category     | Total           | Below Rs. 100     | Rs. 101-200       | Rs. 201-300     | Above Rs. 300   |
|--------------|-----------------|-------------------|-------------------|-----------------|-----------------|
| SC           | 33(33.33%)      | 12(12.12%)        | 21(21.21%)        | Nil             | Nil             |
| ST           | 33(33.33%)      | 14(14.14%)        | 14(14.14%)        | 2(2.02%)        | 3(3.03%)        |
| OBC          | 33(33.33%)      | 10(10.10%)        | 18(18.18%)        | Nil             | 5(5.05%)        |
| <b>Total</b> | <b>99(100%)</b> | <b>36(36.36%)</b> | <b>53(53.53%)</b> | <b>2(2.02%)</b> | <b>8(8.08%)</b> |

Source: Based on primary data collection.

On the other hand, if we look into the male-female point of view, then we can see in chart number 5.3 that, the majority of female students are spending below Rs. 100/- per month. The majority of male students spend per month Rs. 101/- to Rs. 200/-. But it is also noted that there are no female students who spend more than Rs.200/- per month. That means the monthly mobile phone expenditure of female students is less than that of male students.

**Chart No.5.3: Per month average expenditure on the cell phone of respondents.**



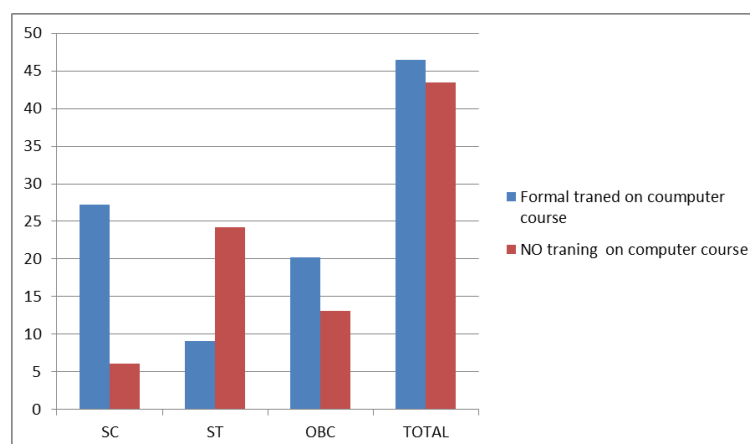
N=99

Source: Based on primary data collection

### Section C: General Usages Pattern of Computer and Internet

In this section, questions were asked as to what the usage pattern of computers and the internet was among marginalised college students. The computer and the internet are the most familiar instruments to the students of the modern world. For successful use of computers and the internet, formal training is necessary for new users. On Chart No. 5.4, it is seen that most of the SC and OBC students are trained, but in the ST category, very few students are trained. The below chart indicates that SC and OBC students are conscious about computer and internet training. But ST students are still too backward to undergo proper training.

**Chart No. 5.4: Formal training of respondents in a computer course.**



N=99

Source: Based on primary data collection.

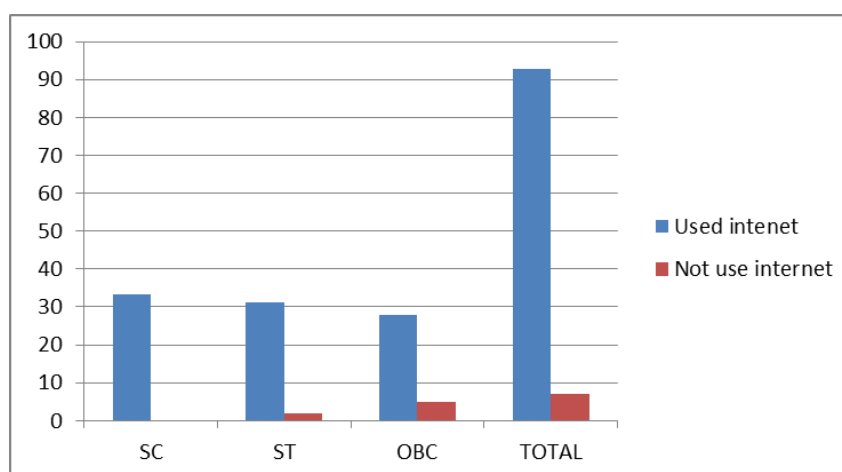
In the modern age, to live on and earn through job and service, application use on the computer is very essential. Table 5.7 shows that among three marginalised classes, SC students are comparatively advanced, while OBC students are more advanced than ST students. A good number of students of ST and OBC are yet to benefit from the use of computer applications. However, if we look a few years back at their use in computer applications, surely, they are advancing day by day.

**Table No.5.7: Application uses in computer among respondents.**

| Category     | Total | Word processor | Spreadsheet | Image editor | Other | Never used any computer course |
|--------------|-------|----------------|-------------|--------------|-------|--------------------------------|
| SC           | 33    | 16             | 20          | 7            | Nil   | 6                              |
| ST           | 33    | 3              | 6           | 3            | Nil   | 15                             |
| OBC          | 33    | 12             | 15          | Nil          | Nil   | 18                             |
| <b>Total</b> | 99    | 31             | 41          | 10           | Nil   | 39                             |

Source: Based on primary data collection.

Use of the internet plays a very important role in the present time for general people as well as students. They can acquire sufficient knowledge, can download important subject materials, and can search for many things. A computer can make a student "Master of the World" through knowledge if he can use and learn properly. Chart No. 5.5 indicates that all three categories of maximum students use the internet. Comparatively, SC students are advancing in front of ST and OBC students. Respondents, who are not interested in using the internet, do not give any satisfactory reply. Most of them remain silent about the question. Two respondents said that they were not interested. One respondent said that he does not know how to use the internet, and four respondents talked about their money problems. The remaining respondents abstained from showing any cause. That means that some students are still unaware of the benefits of the internet.

**Chart No.5.5: Internet using status among respondents.**

N= 99

Source: Based on primary data collection.

If we look closely at the data given in table No. 5.8 about the types of internet connection of the respondents, it is shown that most of the students like to use mobile devices and wi-fi connections for internet use. Only a few students are interested in using broadband, dial-up and other services to use the internet connection.

**Table No. 5.8: Type of internet connection respondent's use.**

| Category     | Total      | Broadband | Dial-up  | Mobile device | Wi-Fi      | Other    | Don't know | Not use the internet |
|--------------|------------|-----------|----------|---------------|------------|----------|------------|----------------------|
| SC           | 33(33.33%) | 02(2.02%) | Nil      | 11(11.11%)    | 15(15.15%) | 2(2.02%) | 3(3.03%)   | Nil                  |
| ST           | 33(33.33%) | Nil       | 2(2.02%) | 10(10.10%)    | 14(14.14%) | 2(2.02%) | 5(5.05%)   | 2(2.02%)             |
| OBC          | 33(33.33%) | 3(3.03%)  | Nil      | 16(16.16%)    | 10(10.10%) | Nil      | 4(4.04%)   | 5(5.05%)             |
| <b>Total</b> | 99(100%)   | 5(5.05%)  | 2(2.02%) | 37(37.37%)    | 39(39.39%) | 4(4.04%) | 12(12.12%) | 7(7.07%)             |

Source: Based on primary data collection.

Students use the Internet for a variety of purposes, including study, hobbies, entertainment, social networking sites, and pornography. Table No. 5.9 presents that respondent of three categories show that 17.17% of SC, 16.16% of ST, and 15.15% of OBC students use the internet for their study purposes. 8.08 of SC, 9.09% of ST, and 7.07% of OBC use the internet for entertainment purposes. 6.06% of SC, 5.05% of ST, and 7.07% of OBC students are using the internet for social networking sites. Only a small number of students are using the internet for pornography. The above table indicates that respondents of all categories are using the internet for study purposes.

**Table No. 5.9: The main purpose of using the internet among respondents.**

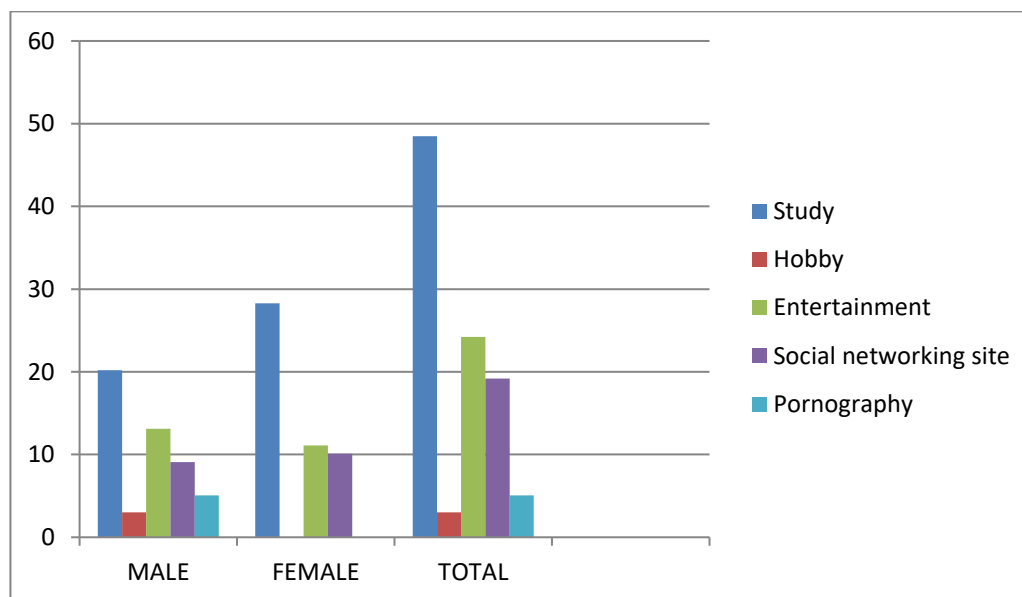
| Category     | Total      | Study      | Hobby    | Entertainment | Social networking | pornography |
|--------------|------------|------------|----------|---------------|-------------------|-------------|
| SC           | 33(33.33%) | 17(17.17%) | Nil      | 8(8.08%)      | 6(6.06%)          | 2(2.02%)    |
| ST           | 33(33.33%) | 16(16.16%) | 2(2.02%) | 9(9.09%)      | 6(6.06%)          | Nil         |
| OBC          | 33(33.33%) | 15(15.15%) | 1(1.01%) | 7(7.07%)      | 7(7.07%)          | 3(3.03%)    |
| <b>Total</b> | 99(100%)   | 48(48.48%) | 3(3.03%) | 24(24.24%)    | 19(19.19%)        | 5(5.05%)    |

Source: Based on primary data collection.

Chart No. 5.6 indicates that the majority of female students are using the internet for study purposes. But the majority of male students always use the internet for hobbies, entertainment, and social networking sites. That means female students are always

advanced in academic purpose. As a result, female students' results are better than male students.

**Chart No. 5.6: The main purpose of using the internet among respondents.**



N= 92

Source: Based on primary data collection.

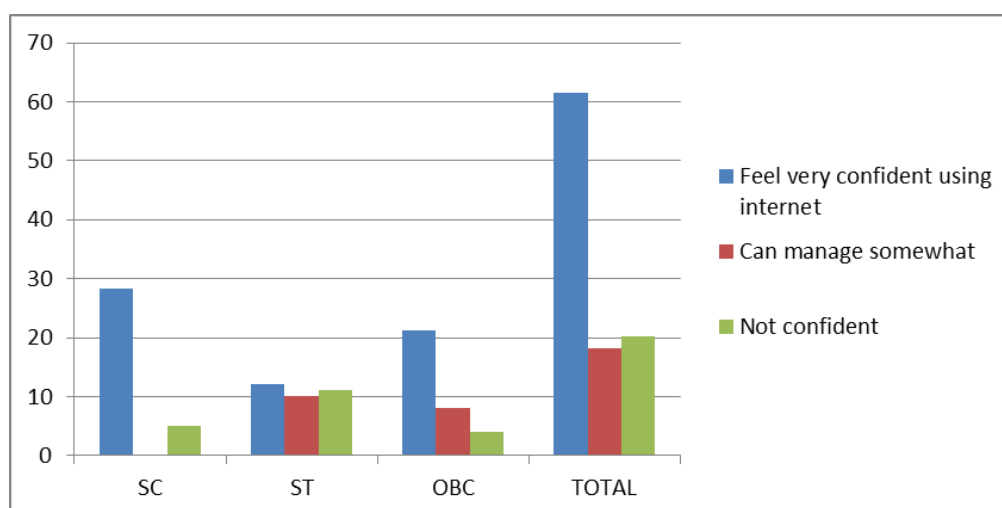
Respondents use the internet for different purposes. Table No. 5.10 shows that among them, YouTube ranked first, Google ranked second, and social networking sites ranked third. Few respondents are also focused on e-mail services.

**Table No. 5.10: Ranked internet service according to respondents.**

| Category | Total      | Search and so on | Chatting   | E-mail   | Social network | You-tube   | Not use the internet |
|----------|------------|------------------|------------|----------|----------------|------------|----------------------|
| SC       | 33(33.33%) | 16(16.16%)       | 2(2.02%)   | Nil      | Nil            | 15(15.15%) | Nil                  |
| ST       | 33(33.33%) | 4(4.04%)         | 10(10.10%) | Nil      | 1(1.01%)       | 18(18.18%) | 2(2.02%)             |
| OBC      | 33(33.33%) | 13(13.13%)       | 5(5.05%)   | 1(1.01%) | 4(4.04%)       | 10(10.10%) | 5(5.05%)             |
| Total    | 99(100%)   | 33(33.33%)       | 17(17.17%) | 1(1.01%) | 5(5.05%)       | 43(43.43%) | 7(7.07%)             |

Source: Based on primary data collection.

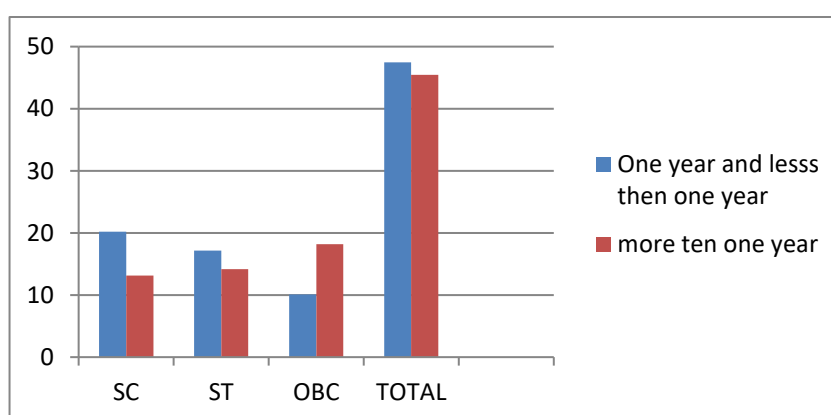
Among the students, the majority of them feel very confident about using the internet. Some of them believe they can manage, and there are a few students who are not accustomed to using the internet. The main cause of no confidence is that they have not gone under proper training about internet use and staying safe.

**Chart No. 5.7: Best describes the away feel about the internet.**

N= 99

Source: Based on primary data collection.

If we analyse charts no. 5.8, we will find that out of 99 students, 47 students use the internet for less than one year and 45 students use the internet for more than one year. The above data indicates that today the internet is part and parcel of the daily use of all SC, ST, and OBC college students.

**Chart No. 5.8: Student internet using the period.**

N= 92

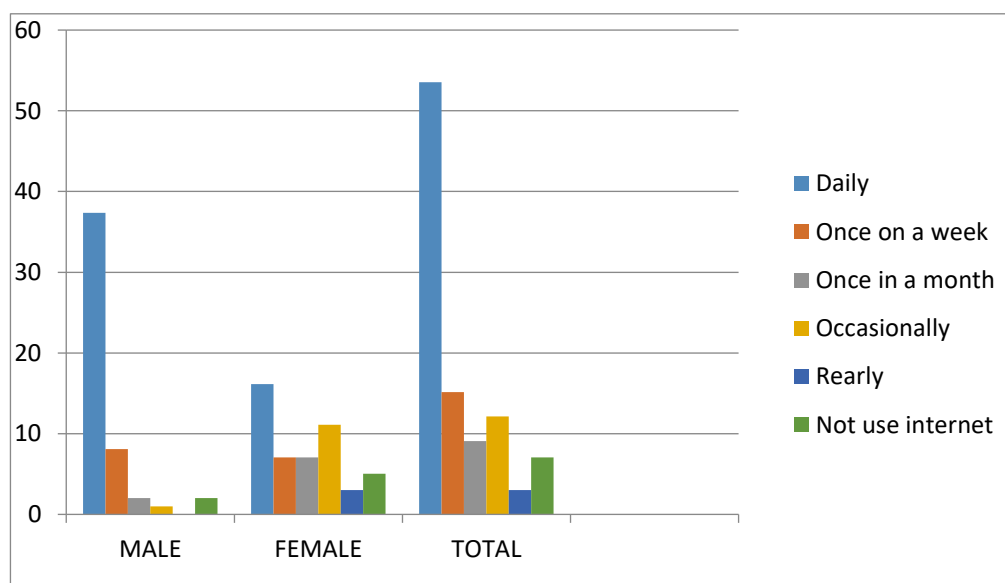
Source: Based on primary data collection

**Table No. 5.11: Respondent's internet using status.**

| Category     | Total      | Daily      | Once in a week | Once in a month | Occasionally | Rarely | Not use the internet |
|--------------|------------|------------|----------------|-----------------|--------------|--------|----------------------|
| SC           | 33(33.33%) | 29(29.29%) | 5(5.05%)       | Nil             | Nil          | Nil    | Nil                  |
| ST           | 33(33.33%) | 27(27.27%) | 5(5.05%)       | Nil             | Nil          | Nil    | 2(2.02%)             |
| OBC          | 33(33.33%) | 21(21.21%) | 5(5.05%)       | Nil             | Nil          | Nil    | 5(5.05%)             |
| <b>Total</b> | 99(100%)   | 77(53.53%) | 15(15.15%)     | Nil             | Nil          | Nil    | 7(7.07%)             |

Source: Based on primary data collection.

Out of 99 students, 77.77% of students use the internet daily, 15.15% of students weekly, and 7.07% do not use the internet. The above table indicates to us that today the internet is getting more important to all SC, ST, and OBC college students. Most of them like to use the internet daily or weekly in search of knowledge and other personal purposes. But on the other hand, if we look at the male-female internet using perspective, we can see that in Chart No. 5.9, daily internet users are mainly male students. Female students normally visit the internet once a week, once a month, and occasionally.

**Chart No. 5.9: Respondent's internet using status.**

N= 99

Source: Based on primary data collection.

**Table No. 5.12: Internet access place of respondents.**

| Category     | Total           | Home              | College         | cybercafé         | Hostel          | Not use the internet |
|--------------|-----------------|-------------------|-----------------|-------------------|-----------------|----------------------|
| SC           | 33(33.33%)      | 20(20.20%)        | 5(5.05%)        | 5(5.05%)          | 3(3.03%)        | Nil                  |
| ST           | 33(33.33%)      | 21(21.21%)        | 10(10.10%)      | Nil               | Nil             | 2(2.02%)             |
| OBC          | 33(33.33%)      | 19(19.19%)        | 2(2.02%)        | 5(5.05%)          | 2(2.02%)        | 5(5.05%)             |
| <b>Total</b> | <b>99(100%)</b> | <b>60(60.60%)</b> | <b>7(7.07%)</b> | <b>10(10.10%)</b> | <b>5(5.05%)</b> | <b>7(7.07%)</b>      |

Source: Based on primary data collection.

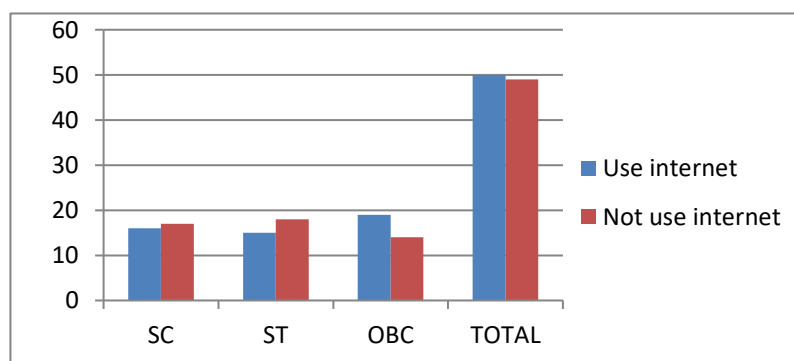
Accessing the internet by college students from different places was found suitable. The above table shows that 60.60% of students access the internet from their home, 7.07% of students access the internet from college, 10.10% access internet from cybercafé; and 5.05% of students access internet from the hostel. From the above table, it is evident that most of the students' internet access points are their homes.

**Table No. 5.13: Websites use frequently among respondents.**

| Category     | Total           | Google            | YouTube           | Porn              | No answer         |
|--------------|-----------------|-------------------|-------------------|-------------------|-------------------|
| SC           | 33(33.33%)      | 11(11.11%)        | 11(11.11%)        | 6(6.06%)          | 5(5.05%)          |
| ST           | 33(33.33%)      | 11(11.11%)        | 13(13.13%)        | 2(2.02%)          | 7(7.07%)          |
| OBC          | 33(33.33%)      | 11(11.11%)        | 10(10.10%)        | 6(6.06%)          | 6(6.06%)          |
| <b>Total</b> | <b>99(100%)</b> | <b>33(33.33%)</b> | <b>34(34.34%)</b> | <b>14(14.14%)</b> | <b>18(18.18%)</b> |

Source: Based on primary data collection.

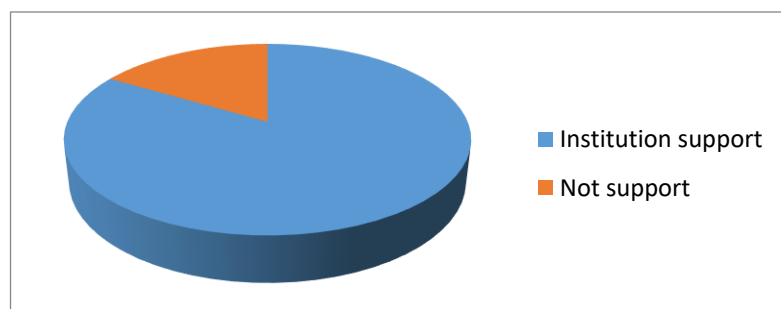
Students visit websites according to their own choice. Many students visit more than one website. Google and YouTube are popular websites. Besides, their visit to a "pornography site" is not negligible. 19.19% of students indicated they do not visit any websites. Perhaps, yet, they do not understand the importance of a website or the value of a website for gaining knowledge.

**Chart No. 5.10: Respondent's family member's internet using status****N=99**

Source: Based on primary data collection.

According to chart No. 5, 10 out of 99 students, 50 students' family members use the internet, and 49.49% of student family members don't use the internet. However, it is assumed that 50.50% of a student's family members are related to using the internet. The student's family members who use the internet are the student's brother, elder sister, and father.

**Chart No. 5.11: Institution support for using the internet and computer.**

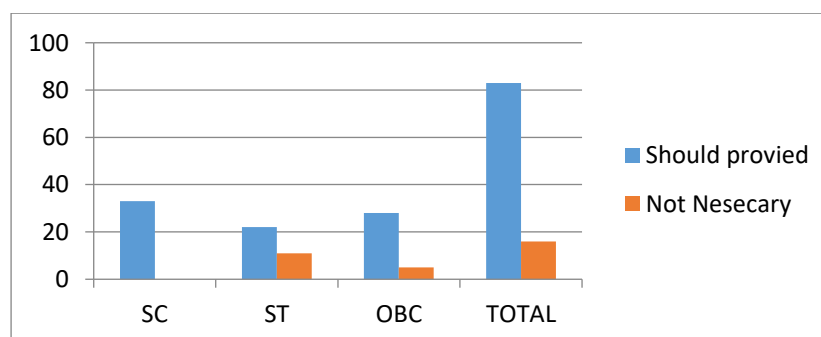


**N=99**

Source: Based on primary data collection.

The computer and the internet are part and parcel of e-education. It is the modern, highest technology. Yet some institutions do not allow their students to use this medium. Chart No. 11 shows that out of 99 students, 81 students' institutions properly support student internet use. But 18 students' institutions do not support them. The main cause of the lack of support is infrastructure problems. Their college is so young, that's why college infrastructure is not ready to give opportunity to using the internet and computers among students.

**Chart No. 5.12: Respondent's opinion about college students providing training in computer and internet.**



**N=99**

Source: Based on primary data collection.

Out of 99 students, 83 students replied that college students should provide training in computers and the internet. Only 16 students don't think that. However, the above table shows that the majority of students are on behalf of taking training provided on computers and the internet.

**Table No. 5.14: According to students how does internet help in education?**

| Category     | Total      | Search subject material | Help project paper preparation | Admission, examination and result purpose | Don't know | others |
|--------------|------------|-------------------------|--------------------------------|-------------------------------------------|------------|--------|
| SC           | 33(33.33%) | 13(13.13%)              | 13(13.13%)                     | 6(6.6%)                                   | 1(1.01%)   | Nil    |
| ST           | 33(33.33%) | 20(20.20%)              | 5(5.05%)                       | 6(6.06%)                                  | 2(2.02%)   | Nil    |
| OBC          | 33(33.33%) | 18(18.18%)              | 2(2.02%)                       | 8(8.08%)                                  | 5(5.05%)   | Nil    |
| <b>Total</b> | 99(100%)   | 51(51.51%)              | 20(20.20%)                     | 20(20.20%)                                | 8(8.08%)   | Nil    |

Source: Based on primary data collection.

The Internet helps students in different ways. According to the respondents, 52.52% of them use the internet for searching subject materials; 20.20% of respondents use the internet for project paper preparation; and 22.22% of students use the internet for admission and result searching purposes. Only 7.07% of the respondents were ignorant about the answer. However, the above figure indicates that the respondents are mainly using the internet for educational purposes for searching for subject materials. The Internet is so valuable among them because it not only helps them with educational purposes but also gives information about various employment opportunities.

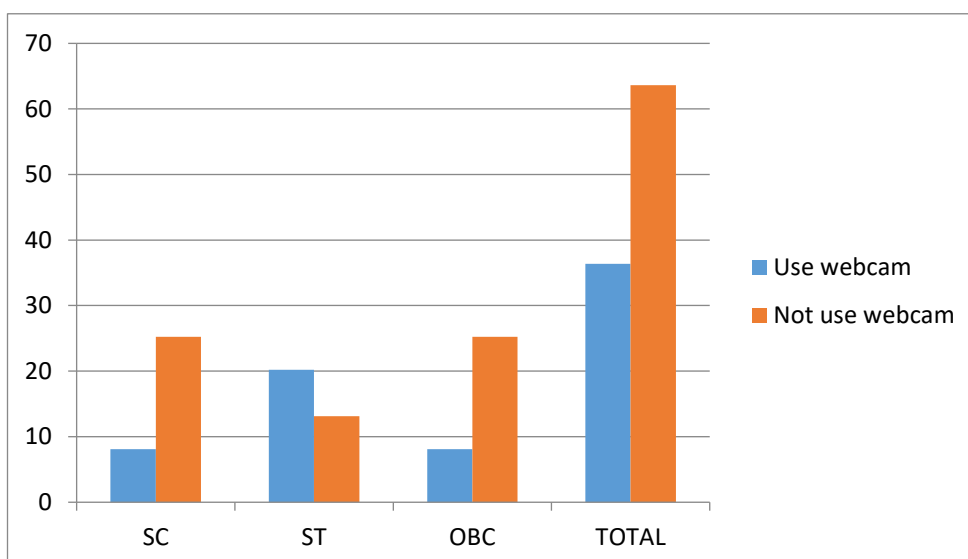
**Table No. 5.15: On average, per day spend on the internet.**

| Category     | Total      | Less than 1 H. | 61M- 2 H.  | 121M. – 3H. | 3H.1M. - 4 H. | More than 4 H. | Don't use |
|--------------|------------|----------------|------------|-------------|---------------|----------------|-----------|
| SC           | 33(33.33%) | 8(8.08%)       | 14(14.14%) | 4(4.04%)    | 4(4.04%)      | 3(3.03%)       | Nil       |
| ST           | 33(33.33%) | Nil            | 22(22.22%) | 2(2.02%)    | 4(4.04%)      | 3(3.03%)       | 2(2.02%)  |
| OBC          | 33(33.33%) | 5(5.05%)       | 12(12.12%) | 2(2.02%)    | Nil           | 9(9.09%)       | 5(5.05%)  |
| <b>Total</b> | 99(100%)   | 13(13.13%)     | 48(48.48%) | 8(8.08%)    | 8(8.08%)      | 15(15.15%)     | 7(7.07%)  |

Source: Based on primary data collection.

Out of 99 respondents, 48 respondents spend 1-2 hours per day on the internet, and 15 students spend more than four hours per day on the internet. Only 7 respondents do not use the internet. That means college students are closely related to the computer and the internet today to earn their knowledge.

**Chart No. 5.13: Student's webcam using status.**

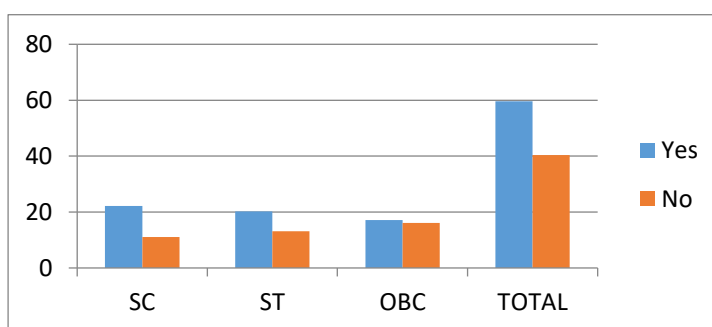


N = 99

Source: Based on primary data collection.

According to the above figure, it is seen that most of the students are not fond of using web-cams. Only 36 of the 99 people who answered used a webcam, while the other 63 didn't care. Students use web-cam for various purposes; they use it generally for video chatting. A few students use it for academic purposes. It is very rarely used for official purposes. So far, webcams are not so popular among students.

**Chart No. 5.14: Formal training of respondent using the internet.**

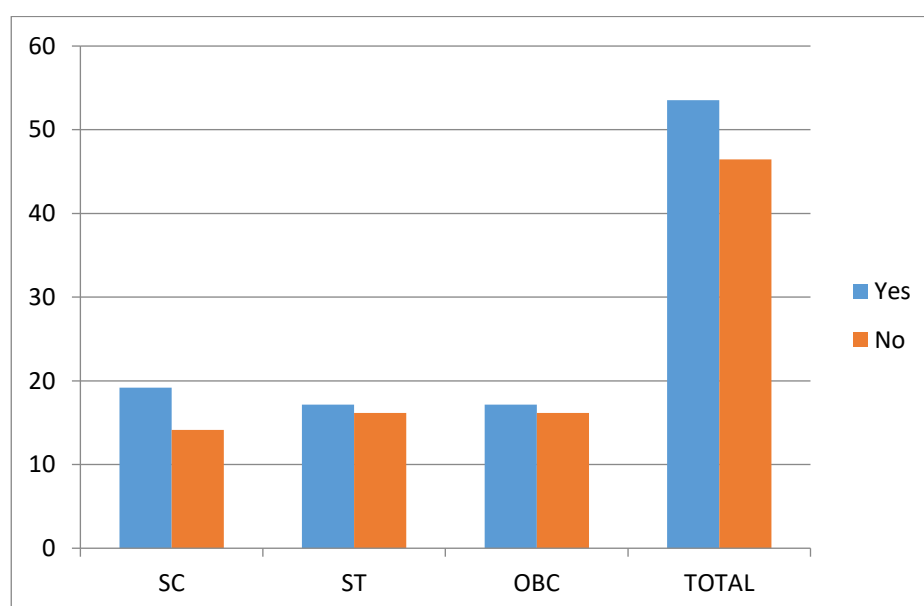


N = 99

Source: Based on primary data collection.

According to the above table, out of 99 students, 59 students are internet trained. Willing to take any internet training, SC, ST and OBC students are seen as some of the most interested in formal training on the internet. On the other hand, out of 99 respondents, 40 respondents are not conscious enough about the internet and its importance. That means the majority of students have already got formal training on the internet, but many of them still don't get any kind of formal training. Without taking any kind of proper training, students are unable to get full internet facilities.

**Chart No. 5.15: Formal training to stay safe on the internet among respondents.**



N= 99

Source: Based on primary data collection.

Everyone should have undergone proper lessons when he is connected to the internet or any kind of complex instrument. Ignorant students may face different kinds of disgusting events when they operate the internet. So, for safe internet operation, students should have received the proper lesson to stay safe on the internet. If we closely justify the above table, we find that out of 99 students, only 53 received formal training and the remaining 46 students have not undergone any formal training on how to use the internet safely.

**Table No. 5.16: Three bad effect about internet according to respondents.**

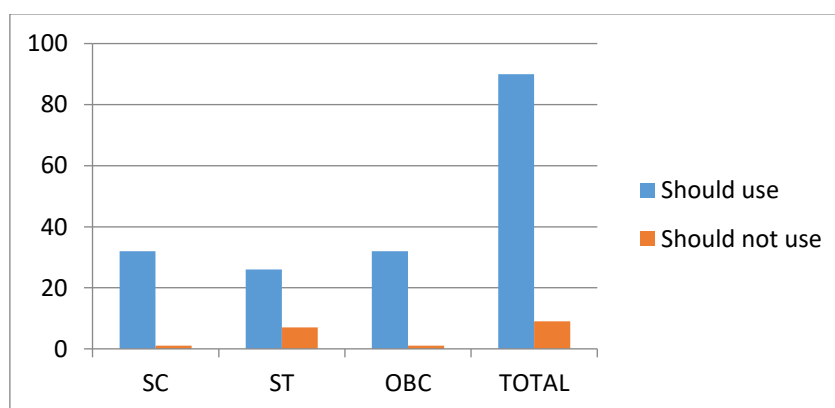
| Category     | Total     | West of too much time | Lack of face-to-face interaction | Decline of morality | cheated   | No answer |
|--------------|-----------|-----------------------|----------------------------------|---------------------|-----------|-----------|
| SC           | 33        | 20                    | 29                               | 4                   | 8         | 4         |
| ST           | 33        | 13                    | 32                               | 8                   | 4         | 1         |
| OBC          | 33        | 20                    | 31                               | 12                  | 7         | 2         |
| <b>Total</b> | <b>99</b> | <b>43</b>             | <b>92</b>                        | <b>24</b>           | <b>21</b> | <b>7</b>  |

Source: Based on primary data collection.

In the modern age, there is no doubt that the internet is a very developed technology to spread education, for communication, for business, and many other aspects. However, the internet has some bad effects too. Out of 99 students, 53 believe that using the internet wastes too much time; 40 believe that it leads to physical inactivity; 24 believe that it leads to moral decline; and 21 believe that it leads to being cheated by an unknown person. 44 students remark that they are losing the way of face-to-face communication with their friends, relatives, and parents.

This is a clear scenario for not putting any formal training to use and how to stay safe on the internet. Because many students don't have any knowledge of how to stay safe on the internet and many of them don't know the biggest benefits of using the internet.

#### **Section D: Internet and Mobile phone use in educational purpose.**

**Chart No. 5.16: Respondents concern about student's mobile phone uses.**

N= 99

Source: Based on primary data collection.

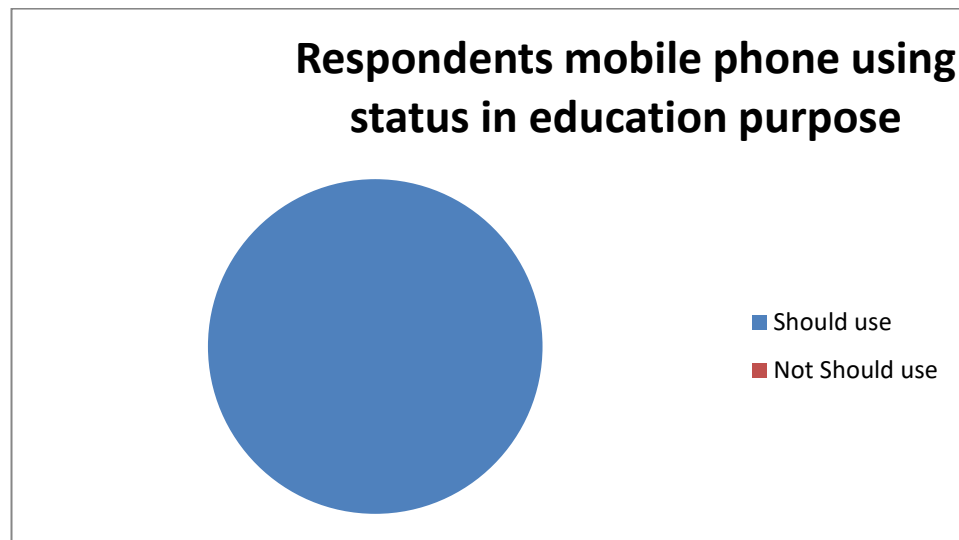
The usefulness of the mobile phone is beyond description. But the success of using it depends on the right utilization. Misuse of the mobile phone leaves the users in trouble. The concern of the respondents about students' mobile phone use is indicated by the above table; out of 99 respondents, 90 believe the student should use a mobile phone. They think that mobile phones are very necessary for students. On the other hand, only 9 students think that mobile phones should not be used by students. Many of them do not know how to use a mobile phone for academic purposes, and some of them believe that mobile phones are harmful to students because they break concentration during lessons.

**Table No. 5.17: From which class students should use mobile phone according to respondents**

| Category     | Total      | Primary stage | Secondary stage | H.S. Stage | B.A. stage | M.A. stage | Should not use |
|--------------|------------|---------------|-----------------|------------|------------|------------|----------------|
| SC           | 33(33.33%) | Nil           | Nil             | 12(12.12%) | 20(20.20%) | Nil        | 1(1.01%)       |
| ST           | 33(33.33%) | 4(4.04%)      | 4(4.04%)        | 12(12.12%) | 6(6.06%)   | Nil        | 7(7.07%)       |
| OBC          | 33(33.33%) | Nil           | Nil             | 10(10.10%) | 22(22.22%) | Nil        | 1(1.01%)       |
| <b>Total</b> | 99(100%)   | 4(4.04%)      | 4(4.04%)        | 34(34.34%) | 48(48.48%) | Nil        | 9(9.09%)       |

Source: Based on primary data collection.

Systematic and right operation yields good results. Unsystematic and wrong use causes fault. Minor students are not very conscious about the use of a mobile phone. At any time, the phone may go out of order. According to the respondent's view, the graduation stage is the best time for students to use mobile phones. Out of 99 respondents, 48 of them supported the graduation stage and 34 respondents supported the higher secondary stage. Only 4 ST respondents supported the primary and another 4 ST respondents supported the secondary stage.

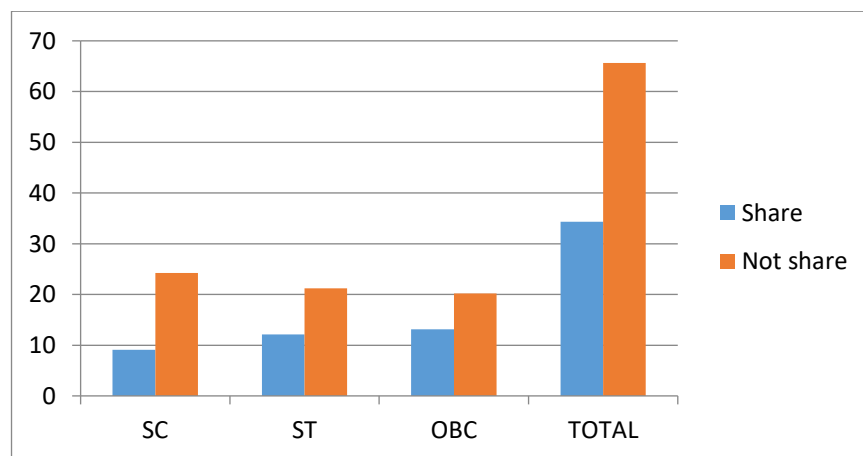
**Chart No. 5.17**

N= 99

Source: Based on primary data collection.

Chart No. 5.17 shows that the respondents were unanimous in their support of educational mobile phone use. Students use mobile phones for educational purposes for different reasons. There are 99 students in this sample, and 35 of them use their phones to reach out to their teachers, 45 to reach out to their peers for group study, and 19 to look up information online. That means the respondents mainly use their mobile phones for educational purposes.

### Section E: Usage Pattern of Internet and Mobile Phone in Social Aspect

**Chart no 5.18: Respondent's opinion about their shearing mobile phone**

N = 99

Source: Based on primary data collection.

Students were asked whether they are wise to share their mobile phones with others. Respondents' consent shows in the above chart where 65 of 99 students do not wish to share their mobile phones because they don't like to share their privacy. On the other hand, 34 students are in favour of sharing their phones with their only brother and sister.

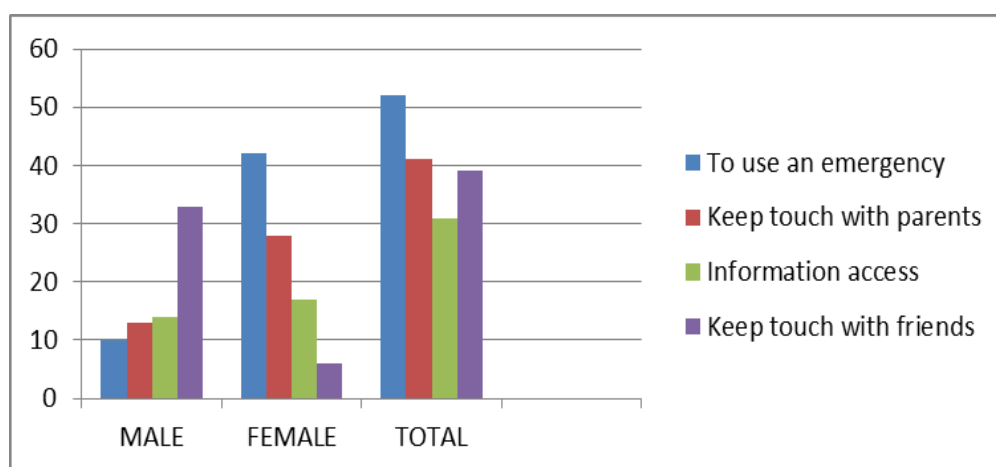
**Table No. 5.18: Respondent's mobile phone using reason.**

| Category     | Total     | Use in emergency | Keep in touch with parents | Information access | Keep touch with friends |
|--------------|-----------|------------------|----------------------------|--------------------|-------------------------|
| SC           | 33        | 15               | 20                         | 15                 | 11                      |
| ST           | 33        | 15               | 5                          | 3                  | 12                      |
| OBC          | 33        | 22               | 16                         | 13                 | 16                      |
| <b>Total</b> | <b>99</b> | <b>52</b>        | <b>41</b>                  | <b>31</b>          | <b>39</b>               |

Source: Based on primary data collection.

Out of 99 students, 52 students use a mobile phone in an emergency, 41 students use the mobile phone to keep in touch with parents, 31 students use the mobile phone for information and messaging, and 39 students use the mobile phone to keep in touch with friends. That means students use their mobile phones for different purposes.

**Chart No. 5.19: Respondent's mobile phone using reason**



N = 99

Source: Based on primary data collection.

Chart No. 5.19 indicates that those students using their mobile phones in an emergency and to keep in touch with parents are a majority of female students. But

for information access and keeping in touch with friends' matters, male students are much more likely to use their mobile phones than female students.

**Table No. 5.19: Common mobile phone usage scenarios among respondents.**

| Scenarios                   | SC | ST  | OBC | Total |
|-----------------------------|----|-----|-----|-------|
| Touch with friends          | 22 | 22  | 16  | 60    |
| Touch with family           | 20 | 18  | 18  | 56    |
| For education and knowledge | 30 | 8   | 14  | 52    |
| Sports scores and news      | 8  | 6   | 7   | 23    |
| Web-browsing                | 21 | 3   | 6   | 30    |
| Lesion to music or radio    | 16 | 8   | 17  | 31    |
| Calendaring and application | 9  | 4   | 7   | 20    |
| Clock and alarm             | 18 | 5   | 6   | 29    |
| Net banking                 | 7  | nil | nil | 7     |
| Online shopping             | 14 | 7   | 2   | 23    |
| Check email                 | 12 | 2   | 8   | 22    |

Source: Based on primary data collection.

The above table shows that respondents use their mobile phones for many purposes. It is noticeable that the majority of respondents of SC, ST, and OBC widely use their mobile phones to stay in touch with friends, for touch with family, and for education and knowledge purposes. Beyond all these three categories, respondents use their phones to check email, sports scores, web- browsing, hear music, use clocks and alarms, and so on.

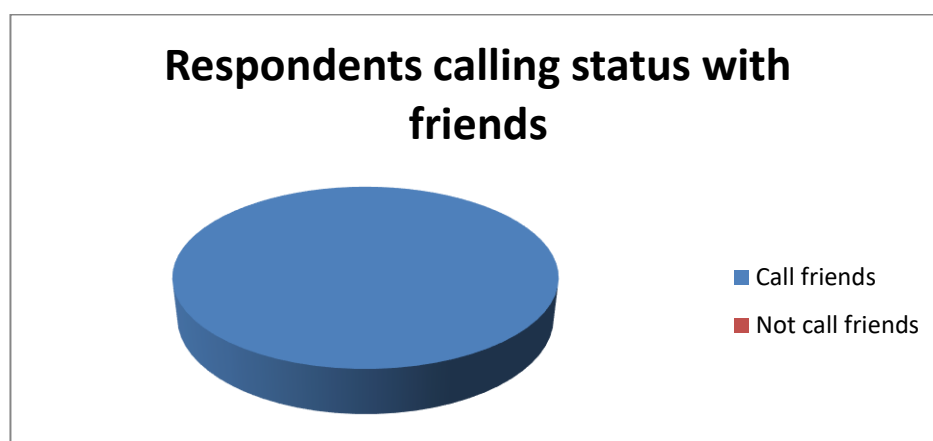
**Table No.5.20: Respondents Using Time to Use Mobile Phone**

| Functions         | Less than 30 M. | 31M- 1 H. | 61M. – 2H. | 121M. - 3 H. | Don't use |
|-------------------|-----------------|-----------|------------|--------------|-----------|
| Calling           | 22              | 16        | 22         | 6            | Nil       |
| Messaging         | 22              | 11        | 26         | 2            | 7         |
| Camera            | 28              | 13        | Nil        | 3            | 2         |
| Music             | 29              | 24        | 7          | 2            | Nil       |
| Video             | 22              | 15        | 11         | 7            | Nil       |
| Internet browsing | 14              | 14        | 16         | 6            | 2         |
| Face book         | 12              | 9         | 6          | 7            | 3         |
| Whats-App         | 12              | 13        | 9          | 6            | 2         |
| You tube          | 15              | 7         | 19         | 4            | 2         |
| Gaming            | 13              | 22        | 2          | nil          | 9         |
| Others utility    | 3               | nil       | nil        | nil          | 2         |

Source: Based on primary data collection.

Beyond studies, students spend their time using a mobile phone in different ways. The above table shows that a proportionally majority of students use their mobile phones for less than 30 minutes to one hour for calling, listening to music, gaming, and internet browsing. A good number of students spend one hour to two hours on calling, messaging, video, and Facebook, perhaps the main choice of the students. Besides, they use their time now and then for many other purposes, such as WhatsApp, YouTube, gaming, etc.

**Chart No. 5.20**



N=99

Source: Based on primary data collection.

Respondents call their friends when direct contact is not possible. Many friends of respondents reside far away, and then their relations remain close with the help of a mobile phone. For education purposes, a friend talks with others about any problems. There are many other problems that a person faces daily. Regarding this point of view, calling friends of the student is no doubt an important factor. Now, according to the above table, we can observe that out of 99 students, none is found who doesn't call their friend. That means every respondent has to call their friends.

Normally, students call their friends in need, some time for general communication, the welfare of their friend's family members, and for invitations, celebrations, and birthdays, which are social contact. The respondent's reasons for calling with their friends are mainly for educational enquiry and information purposes. Many times, a student cannot attend his/her classes punctually, so he/she calls his/her friends who attend classes for previous class notes and other topics

thought by the teachers. A good number of students call their friends for gossip, to provide some information and also invite them to any celebrations.

**Table No. 5.21: Respondents use a mobile phone to call relatives**

| Category     | Total      | Yes        | No       |
|--------------|------------|------------|----------|
| SC           | 33(33.33%) | 33(33.33%) | nil      |
| ST           | 33(33.33%) | 26(26.26%) | 7(7.07%) |
| OBC          | 33(33.33%) | 33(33.33%) | nil      |
| <b>Total</b> | 99(100%)   | 92(92.92%) | 7(7.07%) |

Source: Based on primary data collection.

College students generally reside in a college hostel or rented houses. For this, they are parted from their family members and relatives generally. Many students get admitted to colleges that are in other districts, other states or in foreign countries. Under these conditions, mobile phones are the only easy way for a student to contact his friends and family members in need. Besides, being alone in hostels and being apart from family many times makes a student disheartened and uneasy. To get rid of these problems, contact through mobile phone with the relatives of the student is very important. He feels very at ease and becomes cheerful when he comes to know about the good news from his parents or relatives.

Observing the above table, it is easy to understand that all but a few of the respondents use their mobile phones to contact their relatives. They called their relatives normally to find out anything and to inform them of anything. Some of them call their relatives just for formality's sake and some call only for gossip. On the contrary, out of 99 students of all three categories, only 7 respondents (ST students) do not call their relatives. Among them, five students don't like to call relatives, and the rest of two students say that they don't have any relatives.

## Section F: Usage Pattern of internet and Mobile Phone for Entertainment

**Table No. 5.22: Doing most like online features among respondents**

| Online feature  | SC  | ST  | OBC | Total |
|-----------------|-----|-----|-----|-------|
| Chatting        | 16  | 12  | 20  | 48    |
| Blogs           | Nil | 2   | 2   | 4     |
| Music           | 26  | 12  | 18  | 56    |
| News            | 14  | 8   | 18  | 32    |
| Instant message | 16  | nil | 4   | 20    |
| Gaming          | 2   | 1   | 5   | 8     |
| Data sharing    | 11  | 3   | 9   | 21    |
| Shopping        | 12  | 3   | 7   | 22    |
| Social network  | 12  | Nil | 14  | 26    |
| Web browsing    | 13  | 6   | 13  | 32    |
| Internet TV     | 16  | 2   | 6   | 24    |

Source: Based on primary data collection.

The above table shows that respondents are using the internet and mobile phones for several reasons. Among the students, the highest number of students like to hear music, and among them, chatting got the second position. Also, a large number of respondents are using the internet for online news, social networking sites, web browsing, internet TV, shopping, file searching, and gaming.

**Table No. 5.23: How often Respondents Use the Internet**

| Features         | frequently | Daily | Once in a week | Once in a month | occasionally |
|------------------|------------|-------|----------------|-----------------|--------------|
| Chatting         | 10         | 32    | 4              | 2               | 4            |
| Instant messages | 12         | 30    | Nil            | 2               | 6            |
| Blogs            | 6          | 11    | 6              | 4               | 8            |
| Web browsing     | 12         | 22    | 4              | 4               | 4            |
| File sharing     | 8          | 22    | 4              | 4               | 7            |
| Shopping         | 2          | 02    | 5              | 5               | 11           |
| Internet TV      | 11         | 22    | 2              | 2               | 6            |
| News             | 17         | 22    | 2              | 2               | 2            |
| Social networks  | 10         | 28    | 11             | 11              | 4            |
| gaming           | 10         | 19    | nil            | nil             | Nil          |

Source: Based on primary data collection.

Students use the internet for different purposes. Among the purposes, some are very popular with the students. They are seen in contact with their popular subject once again. Sometimes they communicate online for emergency reasons, and other

times for entertainment. However, a direct survey was done with the students, and the above result is shown in table No. 5.27. According to the table, respondents are familiar with many options. On a daily basis, the majority of students use the internet to listen to music, chat, watch internet TV, read online news, borrow from the internet, use social networking sites, and play games.

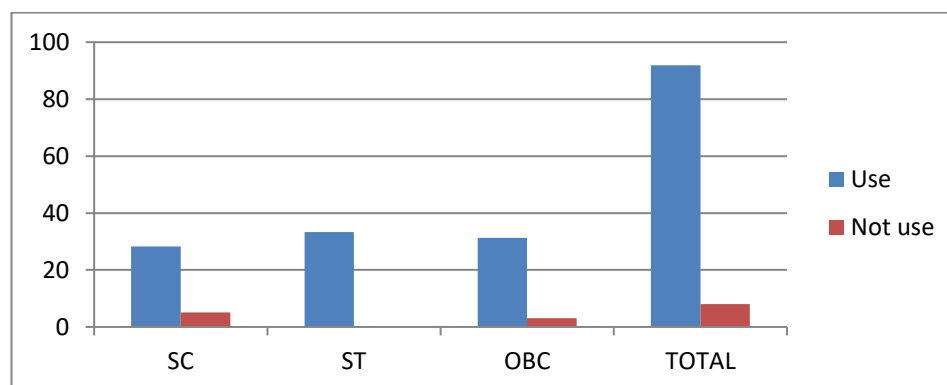
**Table No.5.24: Respondents Email Id Using Status.**

| Category | Total      | Yes        |            | No         |            |
|----------|------------|------------|------------|------------|------------|
|          |            | Male       | Female     | Male       | Female     |
| SC       | 33(33.33%) | 10(10.10%) | 8(8.08%)   | 6(6.06%)   | 9(9.09%)   |
| ST       | 33(33.33%) | 10(10.10%) | 9(9.09%)   | 7(7.07%)   | 7(7.07%)   |
| OBC      | 33(33.33%) | 12(12.12%) | 6(6.06%)   | 5(5.05%)   | 10(10.10%) |
| Total    | 99(100%)   | 32(32.32%) | 23(23.23%) | 18(18.18%) | 26(26.26%) |

Source: Based on primary data collection.

In our daily life, we need to communicate with relatives, friends, offices, hospitals, teachers, and many other people. Till a few years back, the post office, telegrams, and transport were the main means of communication. But generally, all the advantages are suitable for urban people because, except for the post office, telegram facilities are generally available in the town. Besides, communication takes a lot of time today. With the help of modern technology, email is a very popular system to send messages, printed materials, photos, deeds, certificates, letters, etc. and it can be sent within a moment. Not only that, but email also saves postage money and saves time for reaching the post office or telegram office.

Table No. 5.24 shows that 55.55% of students have an email ID. 32.32% of male and 23.23% of female students have an email ID. On the other hand, 44.44% of students don't have any email IDs. 18.18% of students are male and 26.26% of students are female. The majority of students who have an email ID use it for comparative examinations on occasion. Some of them use monthly to send or receive information and data. But unfortunately, there are no students who use their email id daily. On the other hand, those students who don't have any email IDs, the majority of them don't know how to use email IDs. Some students informed us that they have no interest in email IDs, and the rest of them don't feel its needs anymore.

**Chart No.5.21: Respondents WhatsApp using status**

N=99

Source: Based on primary data collection.

WhatsApp is very popular among students. All ST students are using it. Most of the respondents in the SC and OBC categories are also using it. The number of non-using students is very few. Those students are not using it; they do not have WhatsApp facilities on their phone, and some students don't use it for so many unwanted messages. According to their needs, the majority of students are using it for different purposes. A large portion of the student population only uses it to learn and inform themselves. Some students also use it for time passing, gossiping, and also formality maintaining. According to a student's necessity, many times, some students become very busy with other work. Then they use WhatsApp for a minimum time. Sometimes they find sufficient leisure time, so they use it for a long time. The maximum number of students uses it for less than one hour a day, and one to two hours is also a good number. Some students are also using it for two to four hours a day.

**Table No.5.25: Respondents Facebook using status.**

| Category | Total      | Use        |            | No use     |            |
|----------|------------|------------|------------|------------|------------|
|          |            | Male       | Female     | Male       | Female     |
| SC       | 33(33.33%) | 14(14.14%) | 12(12.12%) | 2(2.02%)   | 5(5.05%)   |
| ST       | 33(33.33%) | 12(12.12%) | 9(9.09%)   | 5(5.05%)   | 7(7.07%)   |
| OBC      | 33(33.33%) | 12(12.12%) | 13(13.13%) | 5(5.05%)   | 3(3.03%)   |
| Total    | 99(100%)   | 38(38.38%) | 34(34.34%) | 12(12.12%) | 15(15.15%) |

Source: Based on primary data collection.

If we look back just a bit, the cinema hall, television, and drama theatres were the entertainment and time passing places. On the other hand, in schools, colleges, offices, and public places, people meet among their friends and share information. However, with the advancement of technology, a person can now make friends, share information, get news updates, pass time in leisure time, and enjoy sitting in a room or a place through Facebook. Among the respondents, 72.72% of students are using Facebook and 27.27% of students don't use it. Among those students using Facebook, 38.38% of students are male and 24.24% are female. The majority of them use it daily, some use it weekly and very few of them use it occasionally. The main purpose of using Facebook is to pass time and entertain. Some of the students use Facebook to update information share anything they find, and visit pornography. Some of the students use Facebook to make friends and grow their virtual world. They also like to use fake profiles to share their feelings and personal experiences with unknown or hostile friends because we share their face-to-face friends. After all, they don't know him or her face-to-face. As a result, they feel secure sharing their feelings and are also happy to share them with someone. On the other hand, 12.12% of male and 15.15% of female students don't use Facebook. The main cause of students not using Facebook is lack of facilities; some students don't have any interest in it.

**Table No.5.26: The main way of communication with the respondent's offline friends.**

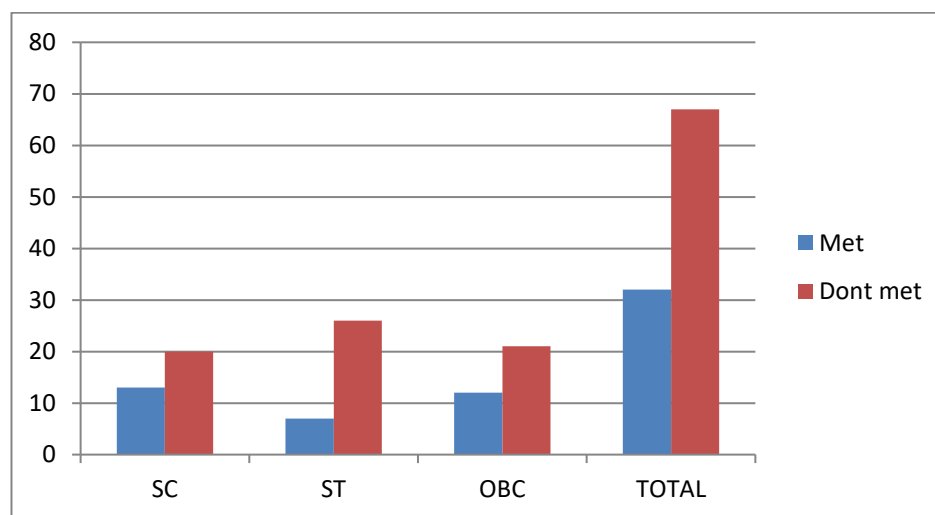
| Way of communication | SC         | ST         | OBC        | Total      |
|----------------------|------------|------------|------------|------------|
| Voice call           | 15(15.15%) | 22(22.22%) | 21(21.21%) | 58(58.58%) |
| Video call           | 1(1.01%)   | nil        | nil        | 1(1.01%)   |
| SMS                  | 11(11.11%) | 6(6.06%)   | 6(6.06%)   | 23(23.23%) |
| Email                | 1(1.01%)   | nil        | nil        | 1(1.01%)   |
| Skype                | nil        | nil        | nil        | Nil        |
| Internet message     | 2(2.02%)   | 4(4.04%)   | 5(5.05%)   | 11(11.11%) |
| Chat room            | 3(3.03%)   | 1(1.01%)   | 1(1.01%)   | 5(5.05%)   |
| total                | 33(33.33%) | 33(33.33%) | 33(33.33%) | 99(100%)   |

Source: Based on primary data collection.

Today, mobile phones and the internet are the most popular and fastest means of communication with others who reside in distant places. If we look back several years from today, only the postal service, telegram, and telephone were the main communication mediums for a maximum number of people. But today, due to the invention of modern technology, communication systems have become very easy and

cheap, immediate and fair. The above table shows that the maximum number of students who use voice calls, send messages, and a small number of students use internet messages and chat rooms to contact their offline friends.

**Chart No.5.22: Respondent's met someone in the real world to whom he or she are connected**



N=99

Source: Based on primary data collection.

The establishment of friendship depends on mainly two factors: direct contact and online contact. When both friends live near each other, direct contact is possible, but when they reside too far from each other, they maintain their friendship through online contact. Many times, online friends do not see each other.

On the other hand, when a student enters a college, naturally, he becomes a member of the wide literate world. In this period, he is about to contact many unknown people. Through mobile phones and the internet, they contact many friends who live in different corners of the country, even outside of it. Through mobile phones and the internet, they have become very close to each other. Sometimes, both friends exchange invitations, as a result of which they meet each other. According to the report of the above chart, respondents, out of 99 students, 13 of SC, 7 of ST, and 12 of OBC students said they're online contacted in the real world. That means a total of 32 students have online contact friends. But 68 students among 99 respondents don't meet their online contact friends yet.

### Section - G: Usage Pattern of Internet and Mobile Phone for Commercial Purpose

**Table No. 5.27: Respondents using the status of mobile phone for any commercial aspects.**

| Category     | Total      | Use        |            | Not use  |            |
|--------------|------------|------------|------------|----------|------------|
|              |            | Female     | Male       | Female   | Male       |
| SC           | 33(33.33%) | 15(15.15%) | 12(12.12%) | 1(1.01%) | 5(5.05%)   |
| ST           | 33(33.33%) | 17(17.17%) | 7(7.07%)   | Nil      | 9(9.09%)   |
| OBC          | 33(33.33%) | 17(17.17%) | 14(14.14%) | Nil      | 2(2.02%)   |
| <b>Total</b> | 99(100%)   | 49(49.49%) | 33(33.33%) | 1(1.01%) | 16(16.16%) |

Source: Based on primary data collection.

Students use their mobile phones for different purposes. Among them, an online commercial service is one. 99 respondents were taken as a sample to know their opinion about the use of online commercial services. According to the respondent's reply, the above distribution table shows that 82 students use mobile phones for commercial purposes and only 17 students do not. Among the users, the majority are female. Hence, it is clear that the majority of people use their mobile phones for commercial aspects. They generally buy books, book railway tickets, clothes, mobile phones, and many other things according to their needs. 99 students were asked about how often they used online commercial services. A maximum number of students replied that they use online commercial services occasionally. 24.24% of students were monthly users, 20.20% of students were weekly users, and only 1.01% of students used daily.

**Table No.5.28: Respondent's online transaction status.**

| Category     | Total No   | Yes        |            | No         |            |
|--------------|------------|------------|------------|------------|------------|
|              |            | M          | F          | M          | F          |
| SC           | 33(33.33%) | 12(12.12%) | 4(4.04%)   | 4(4.04%)   | 13(13.13%) |
| ST           | 33(33.33%) | 13(13.13%) | 6(6.06%)   | 4(4.04%)   | 10(10.10%) |
| OBC          | 33(33.33%) | 14(14.14%) | 2(2.02%)   | 3(3.03%)   | 14(14.14%) |
| <b>Total</b> | 99(100%)   | 39(39.39%) | 12(12.12%) | 11(11.11%) | 37(37.37%) |

Source: Based on primary data collection.

Online transactions are a safe way for banking, marketing, and business. To purchase something, one does not need to carry cash in his pocket. So, there is no fear

of robbery or accidental loss. Prime Minister Narendra Modi is trying to spread the system all over India through online marketing.

Based on the responses of the respondents, Table No. 5.30 is shown. 51.51% of students are on behalf of an online transaction system, but still, 48.48% of students are not interested. That means the online transaction system has not yet attained its greatest success. But it is on the way.

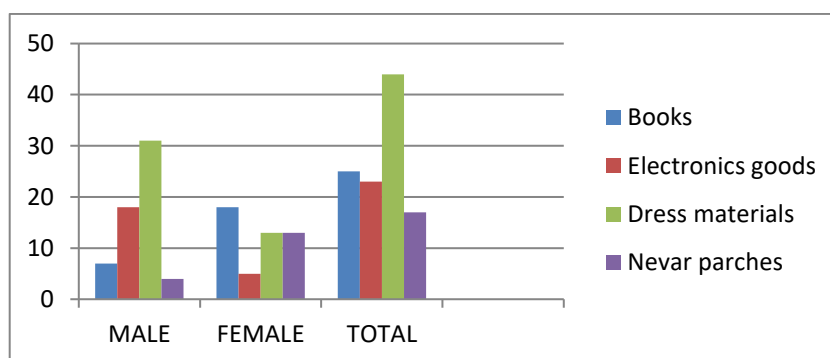
**Table No.5.29: Respondent's favorite item that they normally like purchasing online.**

| Category     | Total No        | Books             | Electronics goods | Vouchers   | Dress materials   | Other      | Never parches     |
|--------------|-----------------|-------------------|-------------------|------------|-------------------|------------|-------------------|
| SC           | 33(33.33%)      | 6(6.06%)          | 5(5.05%)          | Nil        | 16(16.16%)        | Nil        | 6(6.06%)          |
| ST           | 33(33.33%)      | 9(9.09%)          | 5(5.05%)          | Nil        | 10(10.10%)        | Nil        | 9(9.09%)          |
| OBC          | 33(33.33%)      | 10(10.10%)        | 3(3.03%)          | Nil        | 18(18.18%)        | Nil        | 2(2.02%)          |
| <b>Total</b> | <b>99(100%)</b> | <b>25(25.25%)</b> | <b>13(13.13%)</b> | <b>Nil</b> | <b>44(44.44%)</b> | <b>Nil</b> | <b>17(17.17%)</b> |

Source: Based on primary data collection.

The category of purchase varies depending on the quality of a person. Such as, for a young lady, her favourite items are good quality dresses, ornaments, perfumes, etc. Children like to purchase toys, an old man searches for digestive medicine; etc. From this point of view, students are able to purchase their essential books, electronics for entertainment, dresses and many other things related to their daily use. The above table indicates that 25.25% of students like to read books, 13.13% of students like to purchase electronic goods, 44.44% of students like to purchase dress materials and clothes. Here, it's interesting that the most students are buyers of dress materials and clothing.

**Chart No. 5.23: Respondent's favorite item that they normally like purchasing online from a gender perspective.**



N=99

Source: Based on primary data collection.

If we look into the male-female perspective, we can see that the majority of female students' purchase books. But most of the male students purchase clothes and electronic goods. Among the never-purchasing group, female students are also the majority among them. That means female students are still not equal to male students in financial matters.

**Table No. 5.30: Best Payment Method if Students Buy Online.**

| Category     | Total No   | Paytm      | Debit/credit card | Cash on delivery | Postal draft | others | Never purchases |
|--------------|------------|------------|-------------------|------------------|--------------|--------|-----------------|
| SC           | 33(33.33%) | 9(9.09%)   | 1(1.01%)          | 17(17.17%)       | Nil          | Nil    | 6(6.06%)        |
| ST           | 33(33.33%) | 7(7.07%)   | 3(3.03%)          | 14(14.14%)       | Nil          | Nil    | 9(9.09%)        |
| OBC          | 33(33.33%) | 8(8.08%)   | Nil               | 23(23.23%)       | Nil          | Nil    | 2(2.02%)        |
| <b>Total</b> | 99(100%)   | 24(24.24%) | 4(4.04%)          | 54(54.54%)       | Nil          | Nil    | 17(17.17%)      |

Source: Based on primary data collection.

Presently, the payment method has changed. Cash payment is the general system of the purchaser of their purchasing materials. But after the development of modern technology, people may now purchase things using their debit or credit cards, online payment, postal drafts, Paytm, etc. According to the above table, a maximum number of students (54.54%) are in favour of cash on delivery, 24.24% of students use Paytm, and only 4.04% of students are in favour of the debit/credit card payment method. That means, right now, that cash on delivery is the most popular payment method among students.

**Table No. 5.31: Respondents already used websites for commercial purpose.**

| Category     | Total No | Amazon | eBay | Flip kart | Home shop | other | Never used |
|--------------|----------|--------|------|-----------|-----------|-------|------------|
| SC           | 33       | 24     | 1    | 20        | 1         | Nil   | 6          |
| ST           | 33       | 18     | Nil  | 21        | Nil       | Nil   | 9          |
| OBC          | 33       | 26     | Nil  | 28        | Nil       | Nil   | 2          |
| <b>Total</b> | 99       | 68     | 1    | 69        | 1         | Nil   | 17         |

Source: Based on primary data collection.

There are several websites for online shopping purposes. Students use the website according to their own choice, considering the facilities. Out of 99 respondents' 24 SC students, 18 ST students, and 26 OBC students used Amazon websites. On the other hand, 69 students' used Flipkart websites. Only one student

never visited any websites. From the above table, it may be said that both Amazon and Flipkart gained about equal popularity among students.

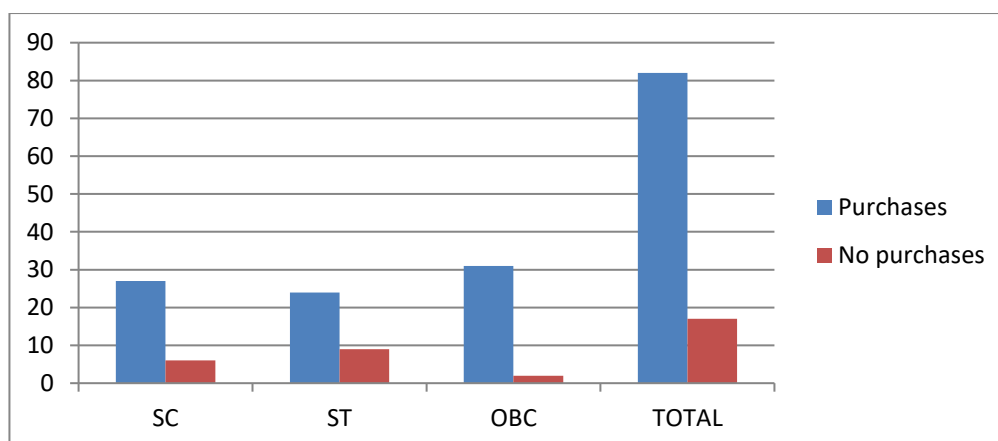
**Table No. 5.32: According to Respondents the Advantages of Online Shopping.**

| Category     | Total No        | Comparison shopping | Latest production | Time saving     | 24- hour accessibility | No comment        |
|--------------|-----------------|---------------------|-------------------|-----------------|------------------------|-------------------|
| SC           | 33(33.33%)      | 2(2.02%)            | 10(10.10%)        | 3(3.03%)        | 4(4.04%)               | 4(4.04%)          |
| ST           | 33(33.33%)      | 2(2.02%)            | 19(19.19%)        | 2(2.02%)        | 2(2.02%)               | 8(8.08%)          |
| OBC          | 33(33.33%)      | Nil                 | 17(17.17%)        | 3(3.03%)        | 6(6.06%)               | 7(7.07%)          |
| <b>Total</b> | <b>99(100%)</b> | <b>4(4.04%)</b>     | <b>46(46.46%)</b> | <b>8(8.08%)</b> | <b>12(12.12%)</b>      | <b>21(21.21%)</b> |

Source: Based on primary data collection.

Generally, purchasers are in the habit of purchasing their necessary articles by wandering from shop to shop, reaching the market area either on foot or using vehicles. Also, cash payment is the general system. But nowadays, a purchaser can purchase all kinds of things while sitting in their own home, but cash payment is not necessary. A consumer can gain many benefits by shopping online. Regarding the advantages of online shopping, 50.50% remarked towards time-saving, 25.25% the latest production information advantage, 12.12% of students said money-saving and 8.08% of students remarked toward 24-hour accessibility. However, the majority of students think online shopping's main advantage is time-saving.

**Chart No.5.24: Respondents last Six Months Online Purchases Statues.**



N=99

Source: Based on primary data collection.

A consumer buys things according to their needs. Someone buys it in online mode; someone buys it from a general/open market. All people's views are not the same. Students use the internet for shopping according to their needs. Generally, their needs are confined to books, electronic products, clothes, and entertainment goods. 82.82% of students used online purchased in the last six months, according to the above table. The remaining 17.17% of students did not use the internet for any purchases. On the other hand, 38.38% of students purchased online two to three times, 20.20% of students purchased online four to eight times, 15.15% purchased one time, and 8.08% of students purchased over twelve times. That means a maximum number of students bought any product two to three times. So, it can be said that most of the respondents are accustomed to using online shopping.

**Table No. 5.33: Non-Purchasing Reason in Online of Respondents.**

| Category     | Total      | Don't know about online shopping |          | Don't like |          | Purchased online |
|--------------|------------|----------------------------------|----------|------------|----------|------------------|
|              |            | M                                | F        | M          | F        |                  |
| <b>SC</b>    | 33(33.33%) | 2(2.02%)                         | 4(4.04%) | 1(1.01%)   | 2(2.02%) | 24(24.24%)       |
| <b>ST</b>    | 33(33.33%) | 1(1.01%)                         | 3(3.03%) | Nil        | 2(2.02%) | 27(27.27%)       |
| <b>OBC</b>   | 33(33.33%) | Nil                              | 2(2.02%) | Nil        | Nil      | 31(31.31%)       |
| <b>Total</b> | 99(100%)   | 3(3.03%)                         | 9(9.09%) | 1(1.01%)   | 4(4.04%) | 82(82.82%)       |

Source: Based on primary data collection.

Online purchasing is getting more popular day by day. There are some purchasers who have an online habit of purchasing from the open market. People of an urban area are more conscious about the advantages of online marketing shopping due to their advancement in qualification compared to those of a rural area. Generally, most of the respondents reside in villages where online facilities are not readily available. On the other hand, low-cost mobile phones do not have online facilities. Poor students cannot afford costly mobile phone sets. The above table shows that 82.82% of students are willing to purchase online. 12.12% of students don't know about the procedure of online shopping. Among them, 9.09% are female students. 5.05% of students are not willing to purchase online shopping, where 4.04% are female students. A maximum number of students must come from a rural area. A very small number of students are not using online shopping, and the majority of them are female students.

**Table No. 5.34: Like and Dislike of Respondents Concern about Online Shopping.**

| Category | Total      | Very like  | Partially like | Likely modify all accordingly | Partially unlike | Very unlike | Don't know |
|----------|------------|------------|----------------|-------------------------------|------------------|-------------|------------|
| SC       | 33(33.33%) | 8(8.08%)   | 12(12.12%)     | 4(4.04%)                      | Nil              | 3(3.03%)    | 6(6.06%)   |
| ST       | 33(33.33%) | 18(18.18%) | 6(6.06%)       | 3(3.03%)                      | Nil              | 4(4.04%)    | 2(2.02%)   |
| OBC      | 33(33.33%) | 16(16.16%) | 8(8.08%)       | 6(6.06%)                      | 1(1.01%)         | 2(2.02%)    | Nil        |
| Total    | 99(100%)   | 42(42.42%) | 26(26.26%)     | 13(13.13%)                    | 1(1.01%)         | 9(9.09%)    | 8(8.08%)   |

Source: Based on primary data collection.

If we judge the advantages of online shopping, we may say that it is a better way. The facilities of online shopping are time-saving, money-saving, information about the latest products, cashless purchasing, and no fear of pick-pockets and miscreants during open marketing. The above table shows that 42.42% of students are found very like, 26.26% of students are partially like, 9.09% of students are unlike online shopping, and 8.08% of students abstained from any comment. Considering the comments of all the respondents, it can be said that the maximum number of students like online shopping.

#### **Section - H: Health Issues Due to Use of Internet and Mobile Phone**

**Table No.5.35: Respondent's felling physical problems to use a mobile phone/ smartphone and internet.**

| Category | Total      | Felling physical problems | No felling problems |
|----------|------------|---------------------------|---------------------|
| SC       | 33(33.33%) | 11(11.11%)                | 22(22.22%)          |
| ST       | 33(33.33%) | 7(7.07%)                  | 26(26.26%)          |
| OBC      | 33(33.33%) | 15(15.15%)                | 18(18.18%)          |
| Total    | 99(100%)   | 33(33.33%)                | 66(66.66%)          |

Source: Based on primary data collection.

A mobile phone is an electronic device. When we use a mobile phone, it scatters some rays which are not beneficial for our health. These affecting rays cannot act vigorously if a user is much aware of the system being used. Many times, phone users feel different kinds of physical disturbance now and then due to their overuse of mobile phones. The above table indicates that 33.33% of students feel the physical

problem. On the other hand, 66.66% of students reported that they do not feel any physical problems. Observing the statements of students, it may be assumed that physical problems were perhaps caused by misuse of mobile phones.

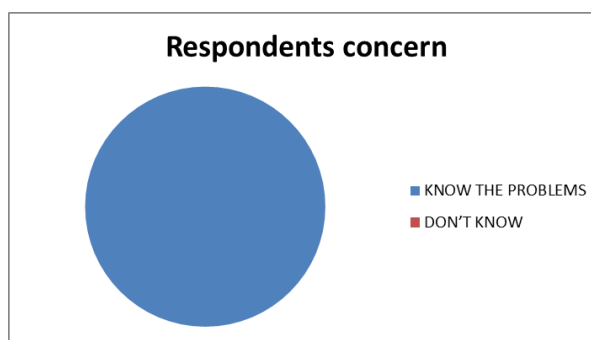
**Table No. 5.36: Respondents felling problems to use a mobile phone/ smartphone and internet.**

| Category     | Total           | Eye pen           | Forehead pen    | Ear pen           | No problems       |
|--------------|-----------------|-------------------|-----------------|-------------------|-------------------|
| SC           | 33(33.33%)      | 6(6.06%)          | 1(1.01%)        | 9(9.09%)          | 17(17.17%)        |
| ST           | 33(33.33%)      | 5(5.05%)          | Nil             | 4(4.04%)          | 24(24.24%)        |
| OBC          | 33(33.33%)      | 3(3.03%)          | Nil             | 5(5.05)           | 25(25.25%)        |
| <b>Total</b> | <b>99(100%)</b> | <b>14(14.14%)</b> | <b>1(1.01%)</b> | <b>18(18.18%)</b> | <b>66(66.66%)</b> |

Source: Based on primary data collection.

In the previous table No. 5.39, we briefly discussed the physical problems that may be caused by using a mobile phone. Here, we are going to draw attention to the user. Among the students, 14% said that they felt eye pain and boredom after using the phone. Only 1.01% report that they feel forehead pain. 18.18% claimed they felt the ear pen. On the other hand, 66% of students don't feel any physical problems. Considering the answers of the respondents, eventually, a question arises: what is the mystery that some respondents feel physical problems but most don't feel them? Students who are experiencing physical difficulties, according to some of them, tend to talk for an extended period of time. Some of them play the game beyond time, and some of them use the internet for very long periods of time. It means that it can be said that the above explanation indicates that some disadvantages to using a mobile phone can be overcome by proper use.

**Chart No. 5.25: Respondent's knowledge about overusing mobile/smartphone can damage major health problems.**



N= 99

Source: Based on primary data collection.

There is a proverb "too much of anything is good for nothing". In our daily life, we employ ourselves for various purposes. We focus our attention on the task at hand, and it has been observed that spending too much time reading and writing causes our eyes to become heavy and tired. Sometimes, it disturbs our brain function. A hard worker becomes ill many times from overworking. A mobile phone is an instrument that scatters ultraviolet rays when it is active. Those users who are aware of the danger are careful and keep themselves away from the effect. All the respondents know that overusing mobile phones can cause major health problems. They also said that "overusing is blamed for causing the problems." Generally, a mobile phone is a safe device, but if somebody misuses it, then the danger is clear. They think that normal and systematic use is not harmful to our health.

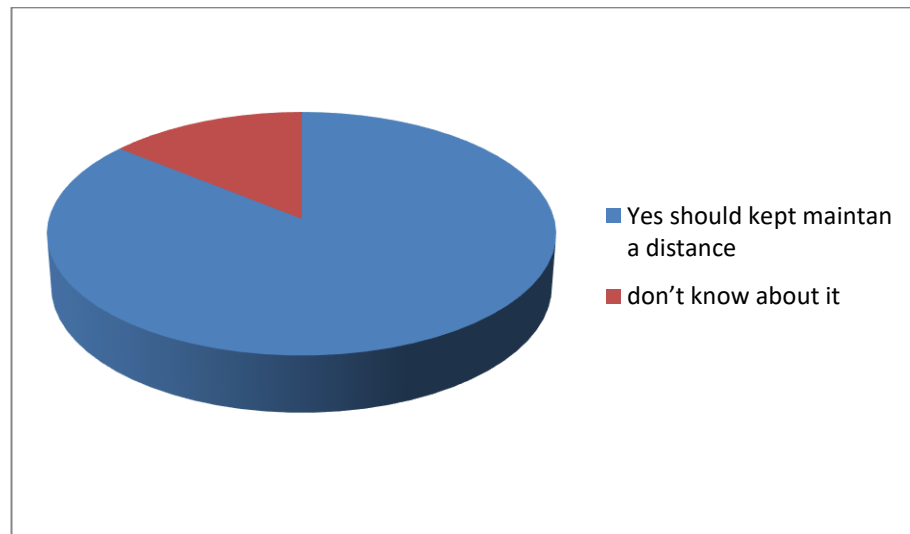
**Table No. 5.37: According to Respondents Chances of Major Health Problems to Over Using Mobile/Smart Phone and Internet.**

| Category     | Total    | Brain tumour | Cancer | Electromagnetic interference | Traffic accidents |
|--------------|----------|--------------|--------|------------------------------|-------------------|
| SC           | 33       | 12           | 6      | 3                            | 24                |
| ST           | 33       | 11           | 7      | 1                            | 30                |
| OBC          | 33       | 16           | 8      | 2                            | 27                |
| <b>Total</b> | 99(100%) | 39           | 21     | 6                            | 81                |

Source: Based on primary data collection.

Overusing mobile phones is harmful to health. Once again, longtime use is harmful to health. Ultraviolet- ray of mobile enters in our body and damage our body cells, slowly by overusing, according to the report of a medical specialist. To measure the concerns of the respondents, a survey was performed and the above table shows the result where 39.39% indicate a brain tumor, 21.21% are anxious for cancer, and 6.06% think for E-magnetic interference. 33.33% blame mobile phone overuse for street accidents. That means it may be assumed that overusing does not yield a good result for health. So, it may be said that everyone should use a mobile phone within the range so that everyone can enjoy good health and save travel time even if they use a mobile/ smartphone.

**Chart No. 5.26: Respondents concern that always Mobile/Smart Phone kept a distance in sleeping time.**



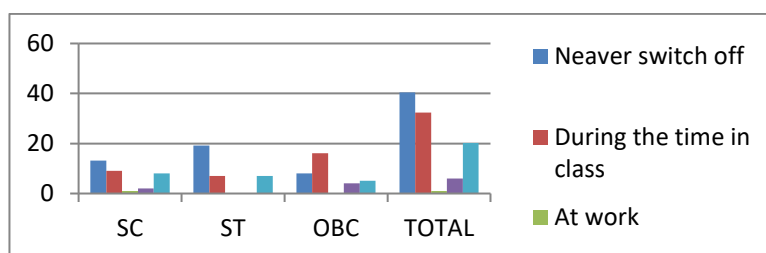
N=99

Source: Based on primary data collection.

In the above chart, we have consulted about the bad effects of mobile phones and also the concerns of the respondents. We work all day long. As a result, we get tired. Only deep and uninterrupted sleep allows us to wake up refreshed. If a mobile phone lies near a sleeping time, it must disturb the user when it is active. Ringtones disturb sleep. Deep sleep is influenced by electromagnetic fields, and the phone may be broken by uncared pressure at night. Among the respondents, most of them are seen on behalf of keeping their mobiles at a safe distance during sleeping time. A few students expressed that they did not know the object. Under these circumstances, it may be said that keeping mobile at a distance during sleeping times has no hard and fast rule and depends on the satisfaction of the user.

## Section -I: Personal and Psychological Issues Due to Use of Internet and Mobile Phone

**Chart No. 5.27: Respondents mobile phone switch-off time**



N=99

Source: Based on primary data collection.

The mobile phone is an instrument, and it can act 24 hours a day, but its activities are controlled by another according to necessity. There are some important places where mobile phone use is prohibited. The above chart found that 40.40% of respondents never keep their phone switched off, 32.32% of students make it inactive during classes, 6.06% of students in the playground; and 20.20% of respondents during bedtime. The above account tells us that students keep their mobile phones off only in times of need; otherwise, they are on behalf of keeping the switch on always. Those students who never keep their mobile phones switched off include 28.28% of students who don't use their phones all the time and 12.12% of students who are afraid to miss an important incoming call.

**Table No. 5.38: Cause of Respondents Mobile Phone Mute or Vibration Mode.**

| Category | Total      | Always mute | Class time | Playground | Sleeping time | Never      |
|----------|------------|-------------|------------|------------|---------------|------------|
| SC       | 33(33.33%) | Nil         | 27(27.27%) | Nil        | 4(4.04%)      | 2(2.02%)   |
| ST       | 33(33.33%) | Nil         | 12(12.12%) | Nil        | 4(4.04%)      | 17(17.17%) |
| OBC      | 33(33.33%) | Nil         | 21(21.21%) | Nil        | 10(10.10%)    | 2(2.02%)   |
| Total    | 99(100%)   | Nil         | 60(60.60%) | Nil        | 18(18.18%)    | 21(21.21%) |

Source: Based on primary data collection.

When the mobile phone receives an incoming call, it alerts us in three ways. These are by a ringtone, by vibration, and by silence mode. Ringtone is a popular system. Vibration and silence cannot make the user alert all the time if he is busy. But the fact is that there are some important situations where mobile phones cause disturbances. In this place, mobile phones are muted or vibrated. Among the respondents, 60.60% of

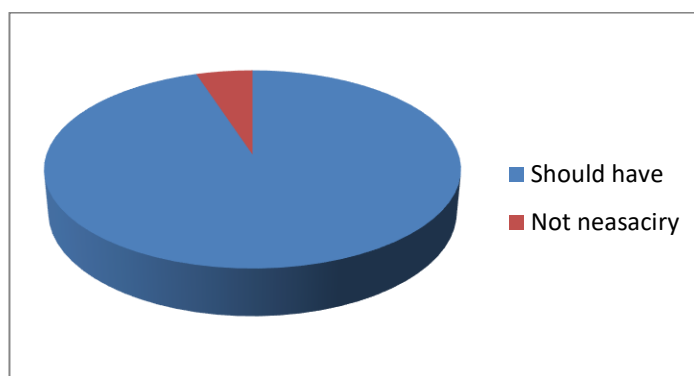
them mute their mobile phones in the classroom. 18.18% of students mute during bedtimes and 21.21% mute in an emergency. As a result, the table shows that students only mute or vibrate their phones when necessary.

**Table No. 5.39: Respondents Using Status of Mobile Phone during Danger or Emergency.**

| Category     | Total      | Use        |            | Not use    |        |
|--------------|------------|------------|------------|------------|--------|
|              |            | Male       | Female     | Male       | Female |
| SC           | 33(33.33%) | 5(5.05%)   | 17(17.17%) | 11(11.11%) | Nil    |
| ST           | 33(33.33%) | 9(9.09%)   | 16(16.16%) | 8(8.08%)   | Nil    |
| OBC          | 33(33.33%) | 7(7.07%)   | 16(16.16%) | 10(10.10%) | Nil    |
| <b>Total</b> | 99(100%)   | 21(21.21%) | 49(49.49%) | 29(29.29%) | Nil    |

Source: Based on primary data collection.

Previously we have talked about the use and non-use of mobile phones. But now we are going to consult about the status of using mobile phones in a danger or emergency. It is a fact that, in danger, a cell phone user cannot fight against his enemies using mobile phones as weapons. But he can get help or be saved right away by calling his friends, family, parents, closest people, or security forces. When a woman faces any danger or attack by miscreants, she can immediately call for police, friends, and relatives. In this aspect, a mobile phone performs the duty of a best friend. According to the above table, 22.2% SC, 25.25% ST, and 23.23% OBC total, 70.70% of respondents use mobile phones in an emergency. On the other hand, 11.11% of SC, 12.12% of ST, and 10.10% of OBC students are not conscious. However, all of the female respondents are used to using a mobile phone in times of danger or emergency. Among the mobile users in an emergency, almost everybody can overcome their problems.

**Chart No.5.28: Respondents Using Mobile Phone View in Emergency.**

N=99

Source: Based on primary data collection.

A mobile phone is a device that allows people to communicate with people all over the world in a very short period of time. In the event of a danger or emergency, a lonely person does not need to be concerned if he has a mobile phone. of a mobile phone, a danger affected person feels undoubtedly helpless. He is unable to seek any help if there is no one nearby. To know the status of mobile phone use in an emergency, 94.94% of respondents commented that everybody should have a mobile phone in a dangerous period, and 5.05% of respondents' remarks are the opposite. Hence, it can be said that everybody should use a mobile phone in danger, which is the opinion of most respondents.

**Table No.5.40: Main Benefits of Using Internet on Mobile Phone.**

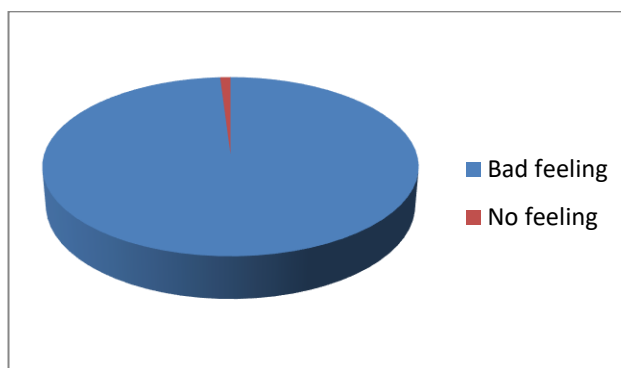
| Category     | Total           | Always accessibility | Search for information | Passing time      | Online utilities |
|--------------|-----------------|----------------------|------------------------|-------------------|------------------|
| SC           | 33(33.33%)      | 5(5.05%)             | 24(24.24%)             | 3(3.03%)          | 1(1.01%)         |
| ST           | 33(33.33%)      | 14(14.14%)           | 14(14.14%)             | 5(5.05%)          | Nil              |
| OBC          | 33(33.33%)      | 12(2.12%)            | 14(14.14%)             | 6(6.06%)          | 1(1.01%)         |
| <b>Total</b> | <b>99(100%)</b> | <b>31(31.31%)</b>    | <b>52(52.52%)</b>      | <b>14(14.14%)</b> | <b>2(2.02%)</b>  |

Source: Based on primary data collection.

To the concern of the students about the main benefits of using the internet on a mobile phone, 52.52% of students remarked that searching for information is the main benefit. 31.31% of students are on behalf of accessibility and for passing time. 2.02% commented that online utilisation is beneficial when they're out of the home.

From the view of respondents, it is apprehended that online use on the mobile phone is beneficial to most of the students, according to their needs.

**Chart No.5.29: Respondents felling, forget to carry a mobile phone in outside.**



N=99

Source: Based on primary data collection.

The modern age is the age of technology. The invention of the mobile phone was one of the greatest and most wonderful inventions of science. Perhaps the mobile phone has reached the peak of its success, as; it is used by most all the people of the modern world. Nowadays, if a person forgets to bring his or her phone, he or she becomes very disheartened, disgusted for his or her carelessness, and also feels lonely, helpless, and so on.

I asked for their feelings to measure the depth of affection of students toward their mobile phones when they forget to carry them when they are outside. Some students exclaimed, "Do you think that how they reach their destination?", "Do you think how I can deal with it in the time of danger?" "I think I'm going to be in trouble," "feel very badly," "Think that leaves something too important," "I feel less alone," "I feel very bad," "I'm going to be lost," "I'm going to think very well," "Think that there's something important missing," "I'm so mad about my error," "I feel insecure," "I feel uncomfortable", "I become very upset", "I feel bored". Considering the total comments of the respondents, it can be said that by forgetting to carry a mobile phone, students get disheartened, lose peace of mind, and feel disgusted. That is an indication of addiction towards mobile phones among students.

**Table No.5.41: Respondents view on Mobile Phone and Internet to Overcome Aloneness.**

| Category     | Total      | Overcome alone less |             | Not overcome alone less |          |
|--------------|------------|---------------------|-------------|-------------------------|----------|
|              |            | Male                | Female      | Male                    | Female   |
| SC           | 33(33.33%) | 14(14.14%)          | 14(14.14%)  | 2(2.02%)                | 3(3.03%) |
| ST           | 33(33.33%) | 16(16.16%)          | 13(13.13%)  | 1(1.01%)                | 3(3.03%) |
| OBC          | 33(33.33%) | 16(16.16%)          | 14(14.14%)  | 1(1.01%)                | 2(2.02%) |
| <b>Total</b> | 99(100%)   | 46(46.46%)          | 41 (41.41%) | 4(4.04%)                | 8(8.08%) |

Source: Based on primary data collection.

A lonely student feels bored if he sits on freehand or in the way when he walks alone. He then overcomes his lonely moments by using the mobile phone now and then. This procedure rid him of his lonely feelings. The following are the results: students were asked about the matter of overcoming loneliness with the help of mobile phones. 28.28% SC, 29.29% ST, and 30.30% OBC students. That means, in a total of 87.87%, students think that they can overcome loneliness by using a mobile phone. Among them, 46.46% were male and 41.41% were female students. The total figure shows that most students think they can overcome loneliness with the help of a mobile phone.

**Table No. 5.42: Respondents View on if Certainly Lost Their Mobile Phone.**

| Category     | Total      | Felling    | No feeling |
|--------------|------------|------------|------------|
| SC           | 33(33.33%) | 29(29.29%) | 4(4.04%)   |
| ST           | 33(33.33%) | 23(23.23%) | 10(10.10%) |
| OBC          | 33(33.33%) | 38(38.38%) | 5(5.05%)   |
| <b>Total</b> | 99(100%)   | 70(70.70%) | 29(29.29%) |

Source: Based on primary data collection.

Every loss is shakable. Gain and loss are the general events of a living person, but no one is found who becomes cheerful and glad after losing anything. In our daily life, we use many things daily, such as pens, motorbikes, mobile phones, wrist-watches, computers, etc. Everything can be purchased from the market. But yet, there are some things that are part and parcel of his daily life. Affection and love towards the lost object make the user very sad.

The above table shows the result if someone loses his or her mobile phone. According to the respondents, 70.70% of students become very sad and their remarks are furnished below. Only 29.29% of students show no feelings if they certainly lose their mobile phone. Most of the students think that they have lost something important. Few students think that they have lost the most important thing in their lives. Some of them think that they have lost their organs. They feel very bad. They feel very sorrowful. They think it has broken their hearts. They feel very angry. How could they spend the day? They feel bad and search everywhere. They would feel like a thrust crow, lots of data is lost and they feel very anxious.

That menace may remark that the loss of a mobile phone, according to their concern, is very painful and intolerable. The loss of a mobile phone to a student is not calculated on its price base but on love and affection as it was part and parcel of his life that gave accompanying always.

The procedure rid him of his lonely feelings. The following are the results: Students were asked about the matter of overcoming loneliness with the help of mobile phones. 28.28% SC, 29.29% ST, and 30.30% OBC students. That means, for a total of 87.87%, students think that they can overcome loneliness by using a mobile phone. Among them, 46.46% were male and 41.41% were female students. The total figure shows that most students think they can overcome loneliness with the help of a mobile phone.

**Table No.5.43: Change of Respondent's Life to Use Mobile Phone and Internet.**

| Category | Total      | Change     |            | No change  |            |
|----------|------------|------------|------------|------------|------------|
|          |            | Male       | Female     | Male       | Female     |
| SC       | 33(33.33%) | 10(10.10%) | 14(14.14%) | 6(6.06%)   | 3(3.03%)   |
| ST       | 33(33.33%) | 11(11.11%) | 8(8.08%)   | 6(6.06%)   | 8(8.08%)   |
| OBC      | 33(33.33%) | 14(14.14%) | 15(15.15%) | 3(3.03%)   | 1(1.01%)   |
| Total    | 99(100%)   | 35(35.35%) | 37(37.37%) | 15(15.15%) | 12(12.12%) |

Source: Based on primary data collection.

A person's lifestyle can change. It is a common event. In general, the change of life is determined by the economic situation. A poor person who used to live on hand to mouth and in a hut now uses cheap clothes. By the standards of economic

growth, he is found to wear valuable clothes, purchase valuable tools to decorate the house, communicate with clubs and eat costly meals. There is another kind of change. A drug-addicted person comes to normal life. A robber and a murderer change into saints when they come into contact with a perfect religious and wise person many times.

We are going to consult about the change in the lifestyle of male and female respondents by using mobile phones and the internet. The following are the concerns of the respondents: all aspects of my life. "Time passes in free time." "My educational life developed." "I can get any suggestions through the internet." "It brings the world to me and helps me a lot to be informative." "I can contact my parents while outside the home and I can learn many things." "Smartness takes place in my life through my mobile phone." "With the help of my mobile phone, I can find a lot of news, do group studies, and learn a lot of things online." "Mobile phones are bringing a revolution in my life." With the help of my mobile phone, I got seconds to get study materials and solved many problems. "Mobile phones are bringing a revolution in my life." Regarding smartness, clovers, short time and connectivity with the world, beauty and enjoying life are the changes that take place in my life through my mobile phone. "My knowledge is developing."

Education, the internet, and mobile phones have changed the lifestyle of respondents. Today, they are in the habit of using 4G touch screen mobile phones. Many women are found who are grazing the cattle, sowing paddy plants in the field, walking along the road, keeping their mobile phones close to their ears and talking with friends and relatives. Not only do today's backward women use mobile phones for the camera, listen to music and songs, but they also play games, chat with friends, and contact shops for updated clothes and ornaments. Educated women and girls search the internet according to their needs. There are many other events which are changing the lifestyles of SC, ST, and OBC male and female students using mobile phones and the internet. Considering the various aspects of the respondents, it may be revealed that mobile phones and the internet are not only the instruments but, indirectly, they are doing much good for mankind.

**Table No.5.44: Mobile Phone and Internet are Important Part in Respondent's life.**

| Category     | Total      | Important part |            | No important part |            |
|--------------|------------|----------------|------------|-------------------|------------|
|              |            | Male           | Female     | Male              | Female     |
| SC           | 33(33.33%) | 16(16.16%)     | 17(17.17%) | Nil               | Nil        |
| ST           | 33(33.33%) | 13(13.13%)     | 6(6.06%)   | 4(4.04%)          | 10(10.10%) |
| OBC          | 33(33.33%) | 15(15.15%)     | 16(16.16%) | 2(2.02%)          | Nil        |
| <b>Total</b> | 99(100%)   | 44(44.44%)     | 39(39.39%) | 6(6.06%)          | 10(10.10%) |

Source: Based on primary data collection.

In our daily life, we encounter different kinds of problems. Many of them are solved by the mobile phone and the internet. As per example, to find a location, call a doctor, contact the police, call the ambulance, inform the fire brigade in an emergency. So, in brief, we can say that today, mobile phones and the internet are used for many purposes, fast and quick service. According to the above table, 44.44% of male students and 39.39% of female students think mobile phones and the internet are a part and parcel of their lives. On the other hand, 6.06% of males and 10.10% of females don't think mobile is so important. That means it can be said that the maximum number of students think that the mobile phone is important in their lives. The following are the own comments of respondents about the importance of mobile phones and the internet in their lives.

"Mobile phones are the best technology in the world." "A mobile phone can solve any problem." "Provide me knowledge in any aspect." "Without a mobile phone or internet, we cannot develop our lives." "My mobile phone is now my only life partner because the all-time mobile phone is accompanied by me." "My mobile phone can help my life in any aspect." "The loneliness is solved." "I can access all study materials, job findings, and current news on my mobile phone." "We are connected with the world by the mobile phone." "Time pass, updated news from my friend, and so many things I get with the help of my mobile phone." "I can learn anything from anywhere." "My mobile phone connects me with the beautiful world." When I am outside and feel lonely and in danger from an unknown person, I use my mobile phone. I don't feel alone and I feel secure. "Mobile phones are very helpful for any work." "I cannot go outside without my mobile phone." "I always feel a gap without

my mobile phone." Considering the point of view of the respondents, it reveals that the mobile phone and the internet are an important part of their lives.

**Table No.5.45: Changes of Respondent's life to use 4G Network.**

| Category     | Total      | Change     |            | No change |            |
|--------------|------------|------------|------------|-----------|------------|
|              |            | Male       | Female     | Male      | Female     |
| SC           | 33(33.33%) | 14(14.14%) | 13(13.13%) | 2(2.02%)  | 4(4.04%)   |
| ST           | 33(33.33%) | 12(12.12%) | 9(9.09%)   | 5(5.05%)  | 7(7.07%)   |
| OBC          | 33(33.33%) | 15(15.15%) | 11(11.11%) | 2(2.02%)  | 5(5.05%)   |
| <b>Total</b> | 99(100%)   | 41(41.41%) | 33(33.33%) | 9(9.09%)  | 16(16.16%) |

Source: Based on primary data collection.

The introduction of the 4G network has developed and reformed networks through which we can obtain all the functions faster than before. The 4G network is very popular today. Because it is the fastest mobile at the moment, one can enjoy networks, cinema, cricket matches, searching for anything, communication, and so on in a very short time. the utilisation of a 4G network, the range of knowledge is running onwards with great speed. On the other hand, due to its speedy functions, users can save time.

Table No. 5.45 shows that 41.14% of male students and 33.33% of female students reveal that the 4G network has changed their lives. But for 9.09% of male students and 16.16% of female students, they did not feel any change. Hearing the point of view of the respondents, it may be concluded that, using the 4G network, the maximum number of male and female students' lives is being changed. Also noteworthy is the encouragement of using 4G networks among SC, ST, and OBC female students.

**Table No.5.46: Fell Problem to Use Mobile Phone and Internet Among Respondents.**

| Category     | Total      | Fell problem |            | No problem |            |
|--------------|------------|--------------|------------|------------|------------|
|              |            | Male         | Female     | Male       | Female     |
| SC           | 33(33.33%) | 4(4.04%)     | 9(9.09%)   | 12(12.12%) | 8(8.08%)   |
| ST           | 33(33.33%) | 3(3.03%)     | 9(9.09%)   | 14(14.14%) | 7(7.07%)   |
| OBC          | 33(33.33%) | 2(2.02%)     | 6(6.06%)   | 15(15.15%) | 10(10.10%) |
| <b>Total</b> | 99(100%)   | 9(9.09%)     | 24(24.24%) | 41(41.41%) | 25(25.25%) |

Source: Based on primary data collection.

A mobile phone is a device by which several items may be performed. People who know the procedure feel no trouble, and the person who does not know is unable to operate. As a result, the feeling problem when using a mobile phone is dependent on the person's experience. There are many institutions for computer training. As a result, the wisdom of mobile and computers is growing day by day. Besides, a person who does not know the procedure asks his friends to help him. Within a short time, he gains a lot of knowledge and does not feel any problems.

The above table shows that among 99 students, 9.09% of male and 24.24% of female students admit that they feel a problem with using mobile phones and the internet. But 41.41% of male and 25.25% of female students do not feel any problems. That means, by the response of the respondents, it is remarkable that the proportion of females is most compared to the male respondents who face the problem. The following are the own comments of respondents about mobile phone and internet use problems. By using a mobile phone and the internet, we forget to emphasise many things. "We do not understand why time is being wasted on a mobile phone." "I ignore face-to-face relations many times." "A lot of time was wasted because I was using my phone." "I always spend time on my mobile phone and forget reading." "Lots of study time lost". Considering the above comments, it can be said that it is a symptom that a large number of respondents are addicted to mobile phones and the internet.

## *Chapter 6*

### **Main Findings and the Qualitative Analysis of the Thesis**

Mobile phones with internet connections bring revolutionary changes in communication. The wireless technology also enables us to perform many jobs quickly and efficiently through different social media platforms. On the other hand, frequent and long-term use also negatively impacts us. Smartphones with good specifications may have a stronger user attachment to the devices. This research suggests that nearly every marginalized college student in Malda district can afford to own a mobile phone. The findings also indicate that students have made full use of smartphones as regular mobile phones and a traditional computer to connect to social networks. After interview and data interpretation, it is found that the usage pattern of mobile phones and internet among marginalized college students in Malda district comes under the following seven heads:

- 6.1 Impacts on Communication Activities**
- 6.2 Impacts on Social Image**
- 6.3 Social media Related Activities**
- 6.4 Impacts on Privacy**
- 6.5 Impacts on Education**
- 6.6 Changes in Health and Behaviour**

#### **6.1 Mobile Phone and Internet Use for Communication Purpose**

The analysis showed that marginalized college students of Malda district used mobile phones for different activities. The responses of the respondents are discussed in this part under the following headings: as it remains linked, essential gadgets, notice of parents, synchronization, and preparation, texting, WhatsApp sending messages, and relationship maintenance, all of which are explained below:

##### **a) Emergency devices:**

Mobile phones allow us to be connected with the world around us. The interview and data analysis show that some respondents left home in the morning and stayed away for almost the whole day for their studies or other work, at that time mobile phones help them to get connected with their family in case of emergency. Shrinath Barman, one of the respondents said that mobile phone is his life belt because

he always wants to stay in touch with his parents and mobile phones help him for so. He also stated that mobile phones allow him to stay in touch with the globe and obtain news from any location. A mobile phone is thus an essential tool for him, providing him with immediate access to any and all information he could need. -Shrinath Barman.

Some females who attended coaching classes stay out for the whole day. They said they acquired cell phones to contact their families during an emergency. **Farida**, a respondent doing a part-time job, her coaching location is distant from her home, so she needs a phone to contact with her family in case of any problem.

Respondents expressed the need to have a phone with them all the time to stay connected with others and have access to its functionalities. The fear of emergencies, in particular, leads participants to believe that they must have their phones when going out to stop feeling isolated and helpless.

#### **b) To inform Parents:**

When underprivileged college students in Malda district first venture outside of the home alone or attend college, they are given a mobile phone by their parents. According to the data research, the safety problem is intriguing as part of the double-edged sword that mobile phones have on the family. Participants appear to have utilised smartphones to maintain family relationships by communicating with their parents and vice versa. Some respondents, particularly women, stated that they purchased a cell phone in order to notify their parents if they were running late. Cell phones are also used by respondents as a remote parenting instrument to inform parents about their daily activities. This was especially true for those without siblings. "I would like to inform my parents... Where am I? Where am I going? So, it's better to be in constant touch; otherwise, they will be tense, and even I will be worried. So, you should have something to tell your parents about."– **Basundhara Mandal**.

#### **c) Coordination and Planning:**

According to the statistics, some of the Malda district's underprivileged college students utilised mobile phones to arrange or plan an evening trip with friends. Another responder, on the other hand, stated he saw most of his friends on a regular basis and had phone conversations with them. Participants utilised mobile phones to communicate with their parents as well as to organise and arrange events with their

friends, family members, and other relatives. Because the respondents lived in around the city and had varying class schedules, it was easier for them to organise their schedules for the day using mobile phones rather than other ways of communication. **Swaminath Oraon**, said that he needs to talk, usually for coordinating and meeting plans. Suppose he has to go and play a football match, so he needs to discuss his next football game. He rarely engages in lengthy discussion with them, because he met them every day.

If a responder has a part-time job and is also enrolled in college, how simple was it for them to arrange a time to see their friends while they were both attending school? A few basic inquiries, such as, "Where is his friend?" When exactly do you expect them to arrive? It is Coordination only; no in-depth discussions necessary. - **Samaritan Das**.

Overall, this research has presented that mobile phone provide an excellent way for many students in Malda district to plan out their days, both in and out of the classroom.

#### **d) Text messaging (SMS) and WhatsApp messaging:**

The examination of the data showed that many people from underrepresented groups rely on their mobile phones' SMS and WhatsApp features for a wide range of communication activities, including social planning and group chats, because it is easy to use and protect their anonymity. One ST disadvantaged student living in a dormitory, Chatto Hasda, said that the SMS and WhatsApp apps on his phone came in handy while organising campus activities. He is currently attending tuition (extra coaching classes for the exam); therefore, he must keep in touch with his buddies and send them SMS messages informing them of his whereabouts. He studied with his friends until 3 or 4 a.m., for which he needs a mobile phone to talk to and answer questions and tests – **Chattu Hasda**.

Another respondent Monika Munda, staying with his parents, claimed she doesn't want to chat on his phone at residence, preferring instead to send SMS, so his parents aren't bothered and don't know if she's communicating: Because she yells when she gets too thrilled by the voice. Her parents could hear her, which isn't always a good thing. Okay, there are a few words in SMS, and she can explain herself a little

bit, and she says something. That is why she prefers to communicate via text. As a result, SMS is the most effective way to connect with friends. - **Monika Munda.**

**Suranjan Biswas**, a SC disadvantaged student who prefers chatting on the phone over texting, said her parents were quite strict about communicating. As a result, while she was with her friends, she utilised WhatsApp messaging on her phone to interact with them. Eighty percent are phone calls and twenty percent are text messages. In the era of 4G, it is preferable to speak on a mobile phone since it is equivalent to texting.

**Subhas Sarkar**, who is a member of the marginalised SC group, stated that texting via WhatsApp was handy when travelling through public transportation. Typically, he prefers to text or send WhatsApp messages. It's just more convenient. He is unable to stand and converse on the local bus since he is surrounded on all sides, so he quickly writes and sends a message. When he is in a public location, he has a lot of difficulty with cell phones and trash (referring to loudness and cross-connections), so texting is safer and more convenient.

#### **e) Maintenance of Relations:**

This research demonstrates that mobile phones and the internet play a crucial role in the context of interpersonal communication. However, it can cause ambiguity and conflict in partnerships. Respondents may use their mobile phones from anywhere to make phone calls, send and receive text messages, access social networking sites, view movies and live events, play video games, and access the internet. The data shows that most respondents usually call their relatives to know about something and inform them of anything. A few calls are to their relative's just to maintain formality, and some call only for gossiping.

The research reveals that how technology is utilised has a good or bad influence on face-to-face communication. The majority of respondents feel that the internet and mobile technologies continue to subtly erode the significance of our interpersonal ties, isolating us from the rest of the world and contributing to today's inevitable sense of isolation. On the other side, it indicates that we prefer to phone, text, or instant message friends rather than spend time with them in person. It may appear simpler, but we eventually see less of our pals in person. While a smiling face emoji is OK, it will never be able to match the ear-splitting grins and mesmerising

gaze of one of your greatest pals. Social sites have modified the written word in a few critical aspects. Most students in Malda district, like other mobile users, have developed a new language and abbreviations in the production of texts that are not in sync with other groups. According to them, internet-connected mobile phones modify communication and express emotions through text messages or talking. GN, GM is commonly used for wishing good night or good morning. Just a snap (e.g., A Diwali Greetings, A Birthday Greetings, etc.) respondent wishes his friends, family members, or relatives on many occasions.

**Azharul Islam**, a respondent said that, why does he need to have long conversations? Yeah, if he talks with his friends or relatives after one or two months. Some of his friends and relatives call him after six months, and then they talk for almost an hour long.

## **6.2 Mobile Phone and Internet's Usage Effects on Social Image**

Maintaining a favourable social image is a crucial element of human psychology. Some marginalised college students in the Malda region utilised their mobile phones as a fashion accessory, a sign of adulthood, an extension of themselves, a prized possession, for personalization, and to negotiate independence with their parents in order to improve their social image.

### **a) Status symbols and Fashion items:**

Most respondents agreed that owning a smartphone indicates a person's status and that flaunting an expensive phone is common. A cell phone is not considered a fashion item by marginalised college students in Malda district, but they did believe that owning a pricey cell phone reflected one's status. Some respondents observed that female cell phone users were more likely than their male counterparts to use them as fashion tools. Manawara Khatun, one of the respondents, questioned her fast-food table's temporary cell phone and said, "Someone could see my Cell phone and think it's a filthy cell phone." She went on to say, "Yes, using high-end cell phones shows your status and estimate."

**Suranjan Biswas**, one of the male responders, believes it is critical to flaunt his affluent family background by flaunting an equally costly cell phone. One's socioeconomic status can be inferred from the presence of a high-end mobile phone. If one uses a cell phone worth Rs. Fifteen thousand means he/she belongs to a wealthy

family. It has become a status symbol in recent times. People who do not own a smartphone, will be looked down upon.

Several male respondents expressed the belief that their male friends bought flashy cell phones in an effort to win the favour of women. They claim, that smart phones, are fashionable and status symbols, and owning one increases one's self-esteem. One is considered fashionable and beautiful if he/she got a good and costly smartphone. They thought that if anyone owns a pricey mobile phone, the female gets impressed with him. If a female is mildly pleased, men attempt to demonstrate their social position using mobile phones. – **Subhas Sarkar**.

Thus, it is found that the mobile phone carries a status symbol and is treated like a fashion item for the young stars. The respondents used their mobile phones to brag to their friends; males used them to impress women, while girls added accessories to make their phones appear fashionable. Almost everyone who responded believed that possessing a high-end cell phone indicates that a person hails from an affluent family. A few respondents with poor family income are said to abuse mobile phones and internet services as a kind of compensation and self-assertion. They may want to give the idea of having a higher economic standing by having a 4G smartphone and internet access.

#### **b) Marker of Adulthood:**

Adulthood is the period in a person's life when their physical and mental growth is complete. Physical maturity does not necessarily imply that adulthood is psychological. Many opine that they are now mature enough to have their mobile phone. **Shrinath Barman** received his cell phone as he was transitioning from high school to college. He stated that it was a gift for his 19th birthday. He characterised it as a watershed moment in his life, signaling that he was now old enough to own a phone.

#### **c) Extension of Self:**

Most respondents had a mobile phone with an internet connection when they were younger, and they treated it as an extension of themselves, a part of their body. This indicated a fundamental shift in some respondents' conceptions of the phone as a necessary tool — something extremely personal, basic, and intimate. **Sarmistha Das**,

one respondent explained how' she felt like someone was cutting her arm when she realized she had lost her phone!

Some respondents' perceptions of the phone as something very personal, basic, and intimate shifted as a result of this portrayal of the phone as part of the body. Most respondents had their internet-enabled cell phones with them. They keep it close to their body and examine it frequently; at night, they keep it beside them. The cell phone has grown so important to responders that majority believe losing one to be equivalent to physical disintegration. **Monika Munda**, a responder, indicated that she feels incapacitated without her mobile phone; as it is the first and last item, she sees each day. It is now an important component of her existence.

#### **d) Prized possession:**

The data above suggest that some students consider their phones to be an extension of themselves. Mobile phones and the internet, according to some respondents, are their most cherished possessions. Camera phones in Smartphone images delight teenagers by introducing variety to mundane daily routines, such as photographing friends and natural beauty, instantly making mobile devices highly personal. Occasionally it's a boon, and occasionally it's a threat. **Deepali Lodha**, a respondent says that she dislikes someone scratching or otherwise hurting her cell phone. On the other hand, it is a menace because it rings and is annoying when studying for exams. She is possessive about her cell phone.

#### **e) Negotiating Independence from Parents:**

Some respondents claimed they were able to get autonomy from their parents over some issues by using their cell phones in a strategic way. Some respondents stated that their parents were unconcerned about their use of cell phones. When they were around their parents, however, just a handful of them stated they were particularly cautious of their cell phone usage. Some respondents relied on their own reasoning to maintain independence in their mobile phone use, while others bowed to the wishes of their parents. **Riddhi Biswas**, a respondent, claimed she has several disputes with her parents about her usage of her cell phone to chat with male friends, something her parents dislike of. There are several restrictions, such as avoiding talking late at night with your buddies and not making frequent phone calls. Then what's the need to speak to them on cell phones when she does her college friends.

There are some drawbacks to this. She has issues with them, and there are several arguments. Why, for example, shouldn't she talk to her pals late at night? Her pals are only allowed to phone her while they are at home.

Some marginalized college students shared an intriguing story about how they had to stop using their phones for personal reasons. They also utilised common sense to keep his phone with him in order to comply with his parents' desires. **Sharmistha Das** said that her parents had set restrictions for her, such as paying more attention to her studies, less attention to her phone, sending fewer messages, not using phones while eating, sitting at home and keeping the phone by her side, and always keeping the phone with her. She didn't get good marks in the B.A. Part-I Exam, so her parents thought it was due to 4G smartphones. She then left her phone at home and removed the SIM card, which included a large number of contacts. (She didn't pick up her phone.) Her mother then advised her to retain it because they were having communication issues with her. The family had issues, so she figured it was all right, they had to say something, so she started to keep the phone.

### **6.3 Mobile Phone and Internet's Usage Effects on social media Related Activities**

The results of the survey showed that students mostly utilised their mobile devices and the internet for media-related purposes such as gathering information, reading the news, buying online, streaming videos, etc.

#### **a) Information and News:**

The majority of respondents indicated they used their mobile phones to get news updates. Some respondents used their cell phones to get cricket news, mostly when there was no electricity and they were outside their houses.

**Gauranga Das** stated that he enjoys the streaming of television channels on his phone. He liked watching both entertainment and news networks, as well as sports like cricket and football. Another responder, **Deepali Lodha**, mentioned that she was interested in learning more about film and reporting on current events. She claims that she gets news summaries from her favourite apps and just taps on the ones she's interested in when she has a moment. She suggests that listening to the radio or watching television at certain times, as well as reading newspapers, may provide us with the most timely news coverage. With mobile Internet services, we may visit

news websites at any moment to explore real-time information and get the latest news, weather, or traffic updates.

Overall, data analysis revealed that participants used their cell phones to get news that was particular to them and that they could share with their peers.

#### **b) Entertainment:**

Most students travelled to their colleges every day by local trains or buses. The participants entertained themselves throughout their travel by listening to music, watching movies, taking photos, playing games, and sending jokes via text messages, WhatsApp messages, and videos. Every day, some students travel vast distances to go to their institutions. Long phone conversations are difficult to have on local trains and buses due to the cramped confines. As a result, respondents frequently listened to music on their phones throughout their everyday commute. They occupy themselves with their iPhones. **Monika Munda**, a participant used to listen to music and play games for entertainment on a regular basis.

The vast majority of long-distance students reported that their cell phones were useful for saving information and taking images throughout their commute. **Subhas Sarkar**, a respondent stated that he used his mobile phone to call, take pictures and listen to music during the commute. He likes to take pictures, browse pictures of places, scenes, nature, flowers, abstracts, etc.

Overall, they reported that they used mobile phones and the internet to pass the time while driving long distances and spending time with friends by listening to music or taking images with their cameras for enjoyment and passing the time. They also used the web to show off their photographic and cinematic talents to their loved ones and the globe.

#### **c) Online Shopping:**

Online shopping is gradually becoming more and more popular among students. The findings showed that online shopping behaviour of college students, explore their satisfaction level through online purchases and identify the factors influencing online shopping. Internet and smartphone have changed the way of businesses, consumer's communication, and transactions worldwide. Female students spend more money on internet purchasing than male students, according to the statistics. Those with an urban nativity spent significantly more money on online

purchasing than respondents with a rural nativity. Females were more likely than males to make internet purchases. College students' online buying behaviour is influenced by information choice, loyalty, competitive pricing, accessibility, risk considerations, convenience factors, security difficulties, knowledge, and window-shopping factors.

#### **6.4 Mobile Phone and Internet Usages Effects on Privacy**

The interviews with students revealed that they used mobile phones and the internet as privacy issues such as private and personal items, maintaining a friendship, online friendships, Tele-friendship and pornography, and online dating.

##### **a) Private and Personal items:**

Some respondents stated that they are personalised and thought about their cell phones. Personal considerations were also utilised to assert personal autonomy on cell phones. Yes, the smartphone is a personal thing; it is a personal item if one uses it for personal purposes. A cell phone might be shared by the entire family, yet it is unquestionably a personal device. –**Azharul Islam**.

Some female respondents indicated they considered their cellphones to be personal goods and didn't enjoy it when people looked at them. Their responses suggested that they used cell phones to keep their personal lives private. A respondent, **Basundhara Mandal**, claimed that she dislikes it when someone picks up her phone and wants to go through her texts, calls, and other messages.

##### **b) Maintain Friendship:**

Cell phones were utilised by respondents, particularly female respondents, to keep in touch with friends. Some respondents stated that they spoke with their friends on a daily basis. Some of the women who participated in this study reported making long-distance phone calls to their girlfriends. Talking over the phone with pals is almost a daily occurrence these days. **Basundhara Mandal**.

##### **c) Cell phone Friendships:**

Aside from routine talks with offline people they already knew, respondents mentioned numerous instances of making friends by contacting random phone numbers. Subhas Sarkar claimed that someone accidentally recharged his phone,

which led to the two of them becoming friends. Over the course of the previous six months prior to the interview, they had become fast friends. A few numbers of the marginalized college-going respondents, such as **Gourango Das** talked about making new friends he had never met before. One of his mobile friendships had already lasted a year at the time of the interview. He has a large number of buddies whom he has never met. They acquired a phone number by mistake, started talking, and became friends. He has a friend who lives in another city called Himadhri Seth, whom he never met, but they call each other daily.

A few numbers of female respondents, such as **Samrita Das**, also said that she has tele-friends whom she never met, but talk daily with each other on the phone.

#### **d) Online Friendships:**

A number of respondents in the Malda district say they use their smartphones to keep in touch with people they met on social networking sites. A few people told personal anecdotes about how they met strange people on social networking sites and became friends with them. They continued their friendships via cell phones after that. To provide just one example, one female responder said that she made a Facebook friend and then exchanged phone numbers with her. She said that she withheld her photo from him out of concern for her privacy. **Deepali Lodha**, another respondent who is a woman, claimed she had an online connection with a gentleman for over a year after meeting him online and exchanging phone numbers.

A few male respondents said that they also made friends with females on Facebook and exchanged mobile numbers. **Suranjan Biswas** claims to have known one of the females for 1.5 years through their mutual Facebook connections. Despite having a partner, **Arup Adhikari** claimed he became friends with a female on WhatsApp so that he could communicate with her on his phone. The majority of these connections are with people of the opposite sex, according to these people's experiences of friendships made on social networking platforms like Facebook and WhatsApp.

#### **e) Online Dating and Pornography:**

In addition to using the internet and cell phones to keep in touch with members of the opposite sex they have never met in person, respondents indicated

they use mobile phones to contact with friends of the opposite sex, even if they could meet face to face. One responder named **Samrita Das** stated that she preferred chatting to guys over the phone rather than in person because it was less intimidating. **Chatto Hasda**, another male respondent, stated that while ladies are less frank in expressing themselves in person, it is easier to conduct intimate chats through cell phones.

Both individual and cultural factors were cited as explanations for why it was more convenient to have conversations with people of the opposite sex via mobile devices rather than in person. **Suranjan Biswas**, one of the respondents, stated that it is unacceptable to discuss sensitive issues such as sex face-to-face for societal reasons. Hence, thinking about them on cell phones was easier for him. As a result, he claimed personal grounds to justify discussing personal mobile phone issues. **Subhas Sarkar**, a self-employed guy who responded, said he didn't get many chances to mingle with ladies and hence resorted to mobile phone communication to find dates.

Overall, the interviews found that respondents utilised the internet and mobile phones to remain in touch with old acquaintances, make new friends through random dialing, and hold talks. As a result, the data revealed that only a small percentage of participants utilised personal and societal reasoning to argue that using the internet and mobile phones for dating isn't inherently improper from his perspective, even if society doesn't agree. Some respondents said that pornographic content may be found on the internet and on mobile phones. Although the participants loved taking images and sharing them with their friends, they also agreed that photographing women without their consent is inappropriate.

## 6.5 Educational Impacts on the Use of Mobile Phones and the Internet

Students from underprivileged backgrounds who were interviewed for this study reported using their mobile devices and the internet for a wide range of educational purposes, including: online activities; collecting and updating study material; enhanced lessons; personalised learning; and student-teacher relationships that were both positive and productive.

**a) Online Activities for Educational Purpose:**

The students believe they can use the Internet and mobile phone as educational tools. Only a few participants said they do not use it for educational purposes. Today, all educational institutions and colleges upload notices and results on the web. Most students are able to follow up on these processes. They use email to send applications to college or institution officials regarding any concerns. Such as details of rates, specifics of the market sheet, and other targets. They use emails and communicated with the officials on a specific cause through text and images.

**b) Updates Study Material and Enhanced Lessons:**

The findings showed that the internet and a smartphone enable students to see the most recent news on a particular topic they're learning. Internet, smartphones, and their multi-functions deliver information and gather with easy navigations and paths. Most students are using these facilities. Despite the fact that social networking, funny videos, and instant messaging might be attractive distractions from academic work, the Internet and mobile phones nevertheless have educational value. Cell phones with Internet access supply students with vital resources in a timely manner. Previously, a student would look for information for projects in library card catalogs, encyclopedias, and publications. Nowadays, mobile Internet connections simplify academic study by allowing students to see the entire text of books and papers via online databases and search engines. **-Monika Munda.**

**c) Educators and Learners Smooth Effective Relationship and Personalised Learning:**

The findings showed that technology makes education more efficient and scalable for students. The majority of students said that in the digital era, the role of the educator is more flexible and less defined; who is educating whom? Participants discussed how teaching is no longer restricted to the conventional function of the instructor. Respondents from marginalised colleges talked about how being an educator is no longer restricted to the traditional job of the instructor. Young people will become their educators because they are digital natives. All of the respondents accept that Mobile technology and the Internet reflect support for new dimensions of education. They get that through the mobile Internet service; students can reach real learning experiences. The premise is that learning is widely accepted as a proactive

process; learners do not receive information passively but create knowledge actively instead. According to the findings, the majority of disadvantaged college students agreed that they could immediately contact professors for study purposes. The majority of respondents stated that they would soon enlist the assistance of their peers in their academics.

**d) Bad impact on Academic Performance:**

Students will benefit from mobile phones in their academics, but only if they utilise them carefully. My research revealed that the majority of students are addicted to their cell phones and use them to play games, connect with friends, and view movies and other media. Because of the widespread use of social networking, texting, and talking on internet-connected mobile phones, most respondents do not devote enough time to their studies, which results in poorer grades and poor academic performance.

## **6.6 Health and Behavioural Impacts on the Use of Mobile Phones and the Internet**

Students' responses to interview questions showed that mobile phone and internet use had both physical and mental health consequences for them.

**a) Physical Health Impacts:**

The findings revealed that people who use the Internet in their leisure time everyday risk becoming addicted and are influenced by human interactions, despite the fact that the study solely looked at the social repercussions of long-term Internet usage. The fast rise of mobile phone gadgets concerns the majority of disenfranchised college students. The technology has created an unsettling scenario for the regular functioning of the human body's biological processes. It resulted in serious illnesses such as Parkinson's disease, Alzheimer's disease, brain cancer, and so on. Short-term repercussions on the body, such as hormone disruption, sleep disturbance, cognitive function impairment, and so on, as well as long-term ramifications, such as DNA damage and infertility, are also concerns for some responders.

**b) Psychological Health Impacts:**

Anxiety condition was also discovered among the respondents, according to the data. When underprivileged children in Malda district are not connected, mobile

phones alleviate the stress of a contemporary lifestyle by giving greater freedom and triggering a new form of worry. They have been left out of society and that they are socially isolated.

Some respondents who have internet addictions were associated with high level depression, restless sleep, social phobia, aggression, shyness, foggy brain, poor eyesight, memory problems, moodiness, unexplained aches, and suicidal symptoms ideation. The findings show that mobile phones and the internet make individuals more introverted and take a footstep back from family and friends, which enhances social anxiety, increases the fear and anxiety of negative social evaluation, and delays facing face interaction. A responder, **Farida Khatun**, remarked that if someone does not have a mobile phone, he or she feels disabled; in the long term, individuals in India find something wanting in them when their cell phone is down.

#### **c) Addiction and Impacts:**

The data revealed that most students could use their mobile phones and internet connections to play games, communicate, and talk to their peers. Mobile phone addicts carry their phones with them everywhere they go and use them while studying, eating, driving, and in inappropriate places like hospitals, churches, classes, lavatories, and danger zones like petrol pumps, concluding that they waste a lot of time sending unnecessary messages to one another through their phones. It's a waste of time and money to do this. The majority of respondents do not devote enough time to their academics and instead spend their time playing games, listening to music, viewing films, and reading text messages on their internet-enabled mobile phones. The ostracised college-going addict respondent spent a lot of time on adult websites for cyber porn, was deeply involved in online relationships, and had obsessive online buying, according to the qualitative analysis of the data analysis and conclusions.

## *Chapter - 7*

### **Conclusion:**

Mobile phones and internet services that are part of wireless information and communication technology use electromagnetic and radiofrequency waves to transfer knowledge and communicate from one place to another without using wires or electrical conductors. The impact of mobile phones and the internet on our life becomes more significant and undeniable. These technologies can also play a crucial role in accelerating the development of our country. Mobile Phones can connect to the internet have made hitherto desktop-based services like banking and GPS obsolete. The widespread use of mobile phones has repercussions for individuals and their social interactions.

On the other hand, long-term usage leads to addictive behaviour that recognizes social and cultural values, habits, and systems shift together with the users themselves. However, my dissertation set out to examine how cell phones have affected underprivileged college students in Malda, West Bengal, India. The research also looked at how male and female students in the district use their mobile phones and the internet differently.

Using extended interviews and observations, this research showed that marginalised college students of Malda used their mobile phones and the internet to communicate with family and friends; explore news; play games; watch videos for entertainment. Participants also utilised mobile phones as a means of expressing themselves, working out their independence from their parents, and making and keeping friends as they matured. The use of mobile phones has altered many aspects of society, including how we interact with one another, our ability to get things done, our understanding of the world, and even our sense of direction and space. The research is wrapped up and its findings are summarised below.

### **7.1 Summary of the Findings and Concluding Remarks:**

My primary goal and research question was to examine whether or not there were any significant disparities in the mobile phone and internet usage patterns of

males and females among the economically disadvantaged college students in Malda region. The interview and data analysis finds the following **seven** aspects of gender differences:

Most male respondents used costly mobile phones and treated them as fashion accessories. They spent more money on the maintenance of their mobile phones. This is because female respondents are not getting equal support from their parents, indicating a patriarchal society.

- Female respondents acquired mobile phones and internet services for calling or messaging parents, friends, or relatives. Group texting, meeting people of the opposite sex, and other forms of "Tele-friendship" and "online friendship" were all activities that involved the use of mobile phones. Females are more geared towards relationships than males and use cell phones to promote social interaction. Possible explanation for the high usage of mobile phones by female respondents is their parents' stricter restrictions on going out and socialising with friends or acquaintances.
- Most female students used their mobile phones and internet services for educational purposes. They used their mobile phone to contact teachers and friends for educational purposes.
- In the case of online shopping, male students are a step ahead in using mobile phones and the internet compared to female students. Most females shop online to purchase books, toys etc. But male respondents used online shopping to buy updated dress materials and electronic items.
- Female respondents use mobile phones and internet services for emergency purposes. They feel powerless without their phone and can't bear to be alone in the world, so they take it everywhere.
- Most female respondents believe that their lives have been changed by using mobile phones and the internet. They have come to know many things by exchanging information. Their ways of talking have changed as they have also changed their vocabulary while messaging. Mobile phones are now playing a significant role in their daily lives.

- Most male respondents believe that they can overcome loneliness by using mobile phones and the internet. They use their mobile phone for pornography and playing various games.

Each of the aforementioned dissimilarities and variants has its own explanation. That might be due to safety concerns. By way of illustration, women may be more reluctant to utilise public communication platforms like cell phones because they worry about being approached by strangers or having their personal information stolen. Dating and romantic interactions between women are discouraged before marriage for a variety of reasons, including cultural norms and familial pressure. Therefore, it's likely that they were more worried about their families finding out about the behaviours in question. There is some evidence from the interviews and statistics to suggest that patriarchal culture, which restricts women's rights relative to men's, persists in our society. The study further indicates that women from marginalized communities in the Malda district are more likely to adhere to social norms and patriarchal rules.

The second objective for this study was to examine the influence of mobile phones and the internet on the education, social, cultural, and economic elements of the underprivileged college students of Malda. The findings revealed that college students between the ages of 18-25 living in the district used mobile phones and internet services for various purposes. The interview and data analysis resulted in the following impacts of the use of mobile phones:

**a. Impact on Education:**

- Some of the students use their mobile phones to enhance their general knowledge by accessing different websites that provide news and eBooks or study material on different topics. A shy student who cannot raise questions in their classrooms clears their doubts through mobile phone and internet service. This mLearning procedure helps to reduce inequality for the marginalized students. The mobile phone internet has transformed into a convenient, quicker, and simpler learning tool for the district's disadvantaged college students.
- Respondents use their mobile phones to easily apply to colleges or institutes by filling up forms, downloading college and university notices or other documents, and uploading their work and qualifications on the websites.

Presently, all institutions' students' performance results are available online; students don't have to stand in a queue to look for the same. Again, students also use their 4G mobile phone and internet service to apply for jobs or competitive exams online.

- Excessive use of mobile phones and the internet is becoming a distraction for students and is wasting their time. Lack of concentration and forgetfulness are noticeable among the heavy users of the respondents. This also affects college students' awareness and eventually leads to a passive mind, leading to soft focus and attention.
- College students, like other users, commonly utilise acronyms and shortcuts while writing and communicating. They are using text-based symbols and deliberate misspellings to communicate. As a result, their writing skill is not good enough. Since there are some negative impacts of using mobile phone and internet, students need to be careful to take the benefits of mobile phones and internet.

#### **b. Social and Cultural Impacts:**

- Respondents used cell phones and internet access to communicate with family and friends during an emergency, tell the family about their whereabouts, coordinate with friends' plans and events, and have private conversations with friends. On the other hand, the respondent, who has a 4G smartphone with an internet connection, spends less time in outdoor activities.
- Students use their mobile phones not only to maintain ostracism and cyber bullying; they use costly- branded smart phones to express their high status among the margins. This can impress other peers of different sex.
- College students in the Malda area have begun using mobile phones and the internet for public communication activities such as group messaging via mobile social networks like Facebook and WhatsApp and voting on reality television programmes.
- Students may interact and communicate with their friends, family, and even strangers via instant messaging, e-mail, and social networking sites like as Facebook, WhatsApp, etc. via their 4G mobile phones and the Internet. For this reason, the 4G mobile phone with Internet connection is the most up-to-

date means of communication and socialising, and it is displacing face-to-face conversation, which is one of rural India's most important and fundamental characteristics. On the other hand, the Internet is isolating kids in the Malda area and diminishing their participation in social activities, therefore growing the divide between them.

- 4G mobile phone with Internet service is allow one person to communicate quickly and effectively. Similar to other mobile and Internet users, students' time is constrained by family and other recognised personal obligations, but social networking sites provide an opportunity to connect quickly and effectively.
- Students attending college in the Malda region utilised cell phones and the internet to maintain friendships with current acquaintances and to form new friendships online or via cell phones. In addition, they utilised mobile phones and the internet to establish and maintain friendships and to engage in amorous interactions with individuals of the opposite sex. They did so in secret to avoid violating societal norms.

The data analysis and findings conclude that mobile phone and internet service use is rapidly increasing in urban and rural areas in the Malda district. Students from disadvantaged backgrounds rely heavily on modern information and communication technology to meet their demands. The survey also indicated that college students used the expanded features and capabilities of their mobile phones and 4G internet services to enjoy themselves in their leisure time by listening to music, conversing online, and downloading films and movies. When they were with pals, they used their mobile cameras to take photographs and film movies. In contrast, they utilised mobile phones and internet services to satisfy media-related demands, such as news access.

College students in the Malda district might share critical information with their peers through the exchange of text messages or multimedia files, which is one of the primary benefits of news access on 4G mobile phones with internet connectivity. It is probable that students preferred to share news with people they already knew in order to engage in dialogues and exchange ideas with friends or other members of society. For this reason, social media platforms like Facebook and WhatsApp Groups are rapidly expanding their readership as credible news resources. They provide the opportunity to exchange opinions and provide input on news topics. It implies that

cell phones are not a straightforward replacement for mass media for news consumption. People typically utilise them as alternate and convenient ways for receiving news when they are unable to access other media gadgets.

College goers use cellophanes to view different cultural programs. It clearly reveals different cultural values and priorities. Here, users with a smart phone can update their cultural activates by acquiring other cultural elements. Thus, a mobile culture has developed by accelerating the process of cultural assimilation.

The Internet-enabled mobile phone is the most modern form of communication, and it is diminishing socialisation processes and face-to-face communication, which is one of the most significant and fundamental characteristics of rural India. On the other side, the Internet is isolating pupils and decreasing their participation in social activities, therefore growing the divide between them. They are more involved with the virtual world.

### **Commercial Impacts:**

- Both urban and rural college students of Malda district had begun to use mobile phones and internet service for online Shopping. One might prefer to shop online: ease of search, lower prices, Information choice, updated fashion information, more comprehensive selection, competitive pricing, time convenience, easy accessibility, and ease of use. Most students use online shopping strategies for electronic goods and clothing purchases.<sup>258</sup>
- Online stores are usually available 24 hours a day, and both urban and rural respondents have Internet access at any time in any place. Again, offering a wide array of information and services and comparing products, online shopping allows marginalized college students to shop at ease without being restricted by time or space constraints. They shop as a result of these hedonic incentives in order to experience pleasure. They view buying online as a sort of enjoyment.

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<sup>258</sup> 18 to 25 age groups of marginalized college students in Malda district prefer a mobile app for shopping and Flipkart, Amazon, Homeshop 18 are the most popular app followed by Amazon and others. Retrieved from <https://www.indiafreestuff.in/top-10-online-shopping-sites-in-india-html>. Accessed on 27/06/2019.

- Online banking transactions such as transactions through credit cards, net banking, mobile banking, etc., are becoming an essential financial service for college students. Using these processes, they quickly gather information and opportunities such as balance inquiries, balance transactions, and check deposits which also help their education-related activities such as scholarship-related information, online fill-up processes, etc.

The study concludes that access to online shopping has truly revolutionized and influenced urban and rural marginalized societies in Malda District. Especially rural areas in Malda district have come into the world of online transactions, and they take these advantages in their day-to-day activities. Also, computer and internet literacy has been discovered to have a substantial link with online buying. The survey found that internet purchasing is satisfying among district's disadvantaged college students. Regarding income, it was found that both high- and low-family income shopped online. Pleasure, relaxation, enjoyment, and satisfaction are the fundamental factors appearing in online shopping. Although they cannot inspect the merchandise before purchase, they are at higher risk of fraud than in face-to-face transactions.

Among the students of Malda district, preference of online shopping is rapidly increasing, which helps to run the process of cultural diffusion from global to local or from urban to rural.

My third objective, which is also my third research question for this study, was to comprehend how mobile phones and the internet may hinder or promote social change, communication, and engagement, which are all impacted by the physical, psychological, and behavioural effects of mobile phone and internet use. The findings found that college students in the Malda District of West Bengal, India, between the ages of 18 and 25 are addicted to their mobile phones and the internet.

- By using Smartphone with internet, students can do faster and easier communication and social interaction. They can communicate and interact anybody, anywhere and anytime as they want. By using this device, the students not only achieve their academic knowledge, they also acquire health care, telemedicine facilities and eHealth service.

- Internet-enabled mobile phones facilitate effective and simple communication with friends and family.<sup>259,260</sup> Students may experience stress, memory issues, hostility, and irritability as a result of their frequent cell phone use. The continual ringing, vibrating notifications, and reminders might irritate a cell phone user between the ages of 18 and 25. High mobile phone usage was related with sleep difficulties and depressive symptoms, and excessive internet-connected 4G mobile phone use may be a risk factor for mental health problems among students.
- College students spend twelve hours every day on their 4G mobile phones, surfing the internet and sending text messages, according to the report. They cannot go 45 minutes without checking their cell phones. These facts indicate that Smartphone addiction exists among the urban and rural college-going students in the Malda district. Inflammation of joints and back pain are also common among college-going students with the increased 4G internet-connected mobile phone use.
- Students in the Malda area are mentally and emotionally hooked to their internet-connected mobile phones; they are attached to their saved text messages, photographs, and videos. As a customised device, the material maintained on a college student's phone, such as phone numbers, letters, images, and videos, has a strong emotional connection. Emotional qualities of an individual augment the value of a mobile phone with Internet access. When their mobile phones are lost or stolen, it may be assumed that college-aged students experience grief and sadness. Depression and rage are not alone caused by the loss of material goods, but also by the loss of a priceless, personalised item. In addition, pupils exhibit irritability when the network is

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<sup>259</sup> According to the World Health Organization, mobile phones and internet service broadcast radio waves over a network of base stations, where radiofrequency waves are electromagnetic fields that cannot break chemical bonds or induce ionisation in the human body (WHO). Retrieved from <https://www.who.int/news-room/fact-sheets/detail/electromagnetic-fields-and-public-health-mobile-phones>. access on 28/06/2019. Accessed on 28/06/2019.

<sup>260</sup> The Federal Communications Commission (FCC) recommends a minimum distance of 20 centimetres between mobile phone users and their handsets to dramatically limit radiation exposure. Radiation waves can have long-term impacts on the brain of both adults and children, with the latter group being more susceptible. Retrieved from <https://ecfsapi.fcc.gov/file/7520956218.pdf>. Accessed on 28/06/2019.

down or they are unable to make a cell phone call or send a WhatsApp message when they desire to. In conclusion, the emotion of dread and rage associated with the non-human equipment is a crucial social aspect in the personalities of college-going students in the Malda area.

- Mobile phone and Internet services increase the anxiety level when marginalized college students cannot connect through their mobiles. It is concluded that 4G internet-linked mobile phones reduce the stress of a modern lifestyle by offering greater flexibility and increasing a new form of anxiety among college students when they are not connected. They feel socially isolated and as though they have missed something.
- Respondents are concerned that there is a significant danger of an accident when someone is chatting on a mobile phone while driving since they give half attention to both the road and the conversation. While driving, they cannot constantly connect their cell phone to the internet.
- Most of the respondents are concerned that excessive use of mobile phones and the internet can have severe negative consequences, such as cancer, autism, immune system disorders, DNA damage, brain dysfunction, and sleeping problems, yet, they cannot ignore the 4G internet-connected mobile phone.

The above discussion concludes that internet-connected mobile phone dependence among urban and rural college-going students in Malda district indicates increasing Nomophobia<sup>261</sup> among 18 to 25 college-going students. Nomophobia, derived from "no-mobile-phobia," is a rising worry in the modern world; the fear of being without a mobile phone, or beyond mobile phone communication, or being unable to use your phone for any reason, such as the lack of a signal, minutes, or battery power. In other terms, phobia is defined as an unreasonable dread, and Nomophobia is a psychiatric illness characterised by a fear of being without mobile phone communication. Generally, this psychological syndrome is triggered among marginalised college

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<sup>261</sup>Meaning of Nomophobia. Retrieved from <https://dictionary.cambridge.org/dictionary/english/nomophobia>. Accessed on 07/07/2019.

students when mobile phones are inactive for any operational, technical, or any other reason. Mobile phone and internet is now an integral part of present day's young generations, without smartphone and internet students feel lonely and also socially alienated.

## **7.2 Steps by the Indian Government:**

Finally, it can be said that the mobile phone and internet service have become the backbone of today's modern society. The intricacy of these wireless technologies has led some, whether users or not, to question the extent to which they are beneficial to mankind. These wireless information and communication technology symbolizes the advancement of human knowledge, and man is considered the generator of this knowledge. Although cybercrimes, hacking, the theft of personal information, MMS scandals, illicit pornography, and a variety of other problems have arisen in India as a result of the abuse of wireless technology, these challenges are not unique. On the other hand, the Blue Whale game, Momo games, and their Challenge hit the headline and brought on a panic attack after it was linked to the death of School and College Students. Nevertheless, the Indian government promotes the Digital India programme. The Department of Electronics and Information Technology created the Digital India programme, which was inaugurated on 1 July 2015. This concerns the Ministries of Communications and Information Technology, Human Resource Development, Rural Development, and Health, among others. This is now redefining India in areas like as medical, law enforcement, sports, and education, as well as reconfiguring interpersonal relationships and altering social conventions. In this context, it is noticeable that the Pradhan Mantri Gramin Digital Saksharta Abhiyan is being initiated under Digital India Programme to make six-core rural and backward families digitally literate by March 2019.<sup>262</sup>

Services e-Hospital<sup>263</sup> is a component of the Digital India initiative. Online Registration System (ORS) is an online site where Aadhaar holders may register for medical appointments nationwide. This service is now accessible online, making it simple to obtain an OPD appointment, test results, and blood supply at any

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<sup>262</sup> Retrieved from <https://www.pmgdisha.in/faq>. Accessed on 07/07/2019.

<sup>263</sup> Online Registration System (ORS) is an online portal where citizens having Aadhaar can enrol for appointments in hospitals across various States and Union Territories of India. Retrieved from <http://ganer.in/e-hospital.html>. Accessed on 07/07/2019.

government hospital. E-Healthcare<sup>264</sup> would encompass online medical records, online pharmaceutical distribution, online medical consultation, and pan-India patient information interchange. The Digital India initiative also promotes the Digi locker service.<sup>265</sup> Digilocker14, the most practical component of the digital India initiative, provides each inhabitant with a personal storage space tied to their Aadhaar number. It may be used to securely store electronic documents and can be accessed through a web portal or mobile application. E-Sign<sup>266</sup> installation offered as part of the Digi-Locker program can be used to sign e-documents digitally. Again, the government of India promotes C Gnet-Swara.<sup>267</sup> It is a Smartphone-based news broadcast system that enables residents of rural areas in India to report on local news and happenings. With the impact of mobile phones, the internet, and other wireless technology, the new economic order ensures excellent industrial and corporate cooperation, globalisation, expansion, and liberalisation among the nations. As a result, Digital India is comprised of three essential components: digital literacy, the digital delivery of government services, and the development of a safe and reliable Digital Infrastructure.<sup>268</sup> Not only can wireless technologies replace tools and services, but they also replace more fundamental human activities. In addition, mobile phones have affected user memory and information access. So, it can be said that the curse and blessings of wireless technology assure us of further strengthening human equality, fraternity, and liberty.

### 7.3 Practical Applications:

The acumens obtained in this research study furnish valuable information for internet and mobile industry professionals, media educators, media practitioners, and various audiences. This research demonstrates that college students like using their cell phones' multimedia capabilities for leisure. On the other side, it sheds light on how students are using their mobile devices and the internet to get their news and

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<sup>264</sup>Retrieved from <http://pib.nic.in/newsite/efeatures.aspx?relid=115276>. Accessed on 07/07/2019.

<sup>265</sup>A simple and secure document wallet. Retrieved from <https://digilocker.gov.in>. Accessed on 07/07/2019.

<sup>266</sup> Secure Electronic Signatures. Retrieved from <http://cca.gov.in/cca/?q=eSign.html>. Access on 07/07/2019.

<sup>267</sup> CGNetSwara. Retrieved from [https://en.wikipedia.org/wiki/CGNet\\_Swara](https://en.wikipedia.org/wiki/CGNet_Swara). Accessed on 07/07/2019.

<sup>268</sup> Digital India. Retrieved from [http://meity.gov.in/sites/upload\\_files/dit/files/Digital%20India.pdf](http://meity.gov.in/sites/upload_files/dit/files/Digital%20India.pdf). Accessed on 07/07/2019.

media fix. Numerous media professionals and programmers can benefit from the study's findings. According to market research, wireless technologies are rapidly rising in popularity as a means of gaining access to news and entertainment information. A newer model of mobile phones or internet service is released at least once a year by most firms in the industry of continual improvement. In India, the price of using a modern network like 4G is steadily decreasing. By sharing my study with these companies, I hope to influence the future design of mobile phones such that they do better than harm to their users. Developers can gain a better understanding of how their products affect people in general by doing field studies with persons in the age range of 18 to 25. Primary mobile phone and internet users between 18 and 25 determine the direction for mobile application developers to extend such innovations as the most popular features, while anything they hate may be excluded from future models.

Again, my research may help the higher authority and Govt. of West Bengal and Govt. of India to understand the status of Marginalized Schedule cast, Schedule tribes, and other backward class college-going students. This study may also help the Indian and West Bengal Govt. to provide and issue the necessary opportunities and schemes. However, they may be educated to report on community-relevant topics, which is in great demand in emerging India, with the right kind of training. Finally, I hope that students and other users may utilise this study to get a critical perspective on the role of mobile phones and the internet in their lives and make informed decisions about the impact of these technologies on their own lives.

#### **7.4 Limitations of the Study:**

This research has a few caveats. The length of time during which the study was performed is one of its key drawbacks. The survey period in which the survey was conducted and written mobile phones and internet services are advancing rapidly and its forms and continuously technology may have changed.

Similarly, the cultural environment, social factors, and contextual factors in marginalized societies of the Malda district are changing. The sociocultural context in which this research was done may have shifted in the years since it was first conducted. If that's the case, it's possible that this study's findings won't apply.

Another problem is that the results cannot be extrapolated to all Indians aged 18-25. Low-socioeconomic-status college students from the Malda area made up the study's sample. The findings may not generalise to all high school graduates in the area who plan to attend college. Again, it's possible that the findings don't generalise to the young people in other areas of India.

This study is an exploratory investigation into the factors that may influence people's reliance on mobile devices and online content. Differential usage of mobile phones and internet services in Malda district may be due to factors such as the socio-cultural setting of the disadvantaged community, lifestyle characteristics, and access to the media, all of which are identified in this study.

### **7.5 Future Research Directions:**

The study revealed that students' dependency and addiction to mobile phones might lead to severe psychiatric and psychological problems. Further studies may be conducted to discover the Nomophobia attitudes and various types of homophobia-related behaviour of the college students.

This study may also help to investigate the impact of mobile phones and the internet on social media-related grounds, because social media is becoming ever more intertwined in our everyday lives and relationships.

Conducting and identifying the societal and individual triggers that cause different age groups and persons to use new media for public communication may be aided by such research. Understanding the entire influence of current advances on socio-cultural systems requires research into new technologies and how they affect us.

This study found that online shopping is gradually becoming popular among students. Generally, students prefer to buy their essentials from E-Commerce sites. With the growing popularity of online shopping, future studies may also investigate the impact of E-Commerce sites on the local market.

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# *"Questionnaire"*

*For*

**“USAGE PATTERNS OF MOBILE PHONES AND  
INTERNET AMONG MARGINALIZED COLLEGE  
STUDENTS: A CASE STUDY IN MALDA DISTRICT,  
WEST BENGAL”**

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**Section - A: Demographic Information :( Please " ✓ "only correct** <sup>198</sup>  
**information of the following)**

|                                   |                   |                    |             |                       |  |
|-----------------------------------|-------------------|--------------------|-------------|-----------------------|--|
| <b>1. Name:</b>                   |                   |                    |             |                       |  |
| <b>2. Age:</b>                    |                   |                    |             |                       |  |
| <b>3. Gender:</b>                 | a) Male           | b) Female          | c)others    |                       |  |
| <b>4. You live in a</b>           | a) Panchayat      | b) Municipality    |             | c) corporation        |  |
| <b>5. Monthly family income :</b> | a) Below Rs 5,000 | b) Rs 5,001-10,000 |             | c) Rs 10,001 Above    |  |
| <b>6. Religion</b>                | a) Hindu          | b) Muslim          | c)Christian | d)Other               |  |
| <b>7. Cast</b>                    | a) Schedule cast  | Schedule tribe     |             | Another backward cast |  |

|                                                   |              |                 |           |                |              |
|---------------------------------------------------|--------------|-----------------|-----------|----------------|--------------|
| <b>8)Name of the college:</b>                     |              |                 |           |                |              |
| <b>9)The college you studied is located in:</b>   | a) Panchayat | b) Municipality |           | c) corporation |              |
| <b>10) The medium of instruction at college.</b>  | a) Bengali   | b) English      |           | c) Others      |              |
| <b>11)Academic performance in your last exam:</b> | a) Below40%  | b)40%-50%       | c)51%-60% |                | d)Above 60%. |

**Section - B: General usage Pattern of Mobile Phone ("✓" in the appropriate answer)**

**1. Do you use a mobile or smartphone?**

**Answer:**

- a) Yes
- b) No (If no, go to Question 6)

**2. How many mobile phones you are using now?**

**Answer:** -----  
-----

**3. If more than one, then why?**

**Answer:**

- a) For educational purposes
- b) For the different feature
- c) Different Sims connection
- d) Other, please specify-----  
-----

**4. What is the price segment of your mobile phone?**

**Answer:**

- a) Below Rs.2000
- b) Rs. 2001-10000
- c) Rs.10001-20000
- d) Above 20000

**5. How much time do you spend on your mobile phone on average in a day (calls only)?**

**Answer:**

- a) Less than 30 minutes
- b) From 31 minutes to 1 hour
- c) From 61 minutes to 2 hours
- d) From 2 hour1 minutes to 3 hours
- e) More than 3 hours

**6. Which are the services you use on your mobile phone? (You can choose Several options)**

**Answer:**

- a) Voice Call.
- b) SMS
- c) Multimedia Messages.
- d) GPRS/Internet.
- e) File sharing.
- f) FM Radio/listening to music
- g) Filming (photo and video)
- h) Others (Please specify) -----  
-----

**7. Which of these is your favourite feature on your mobile phone?**

**Answer:**

- a) Camera
- b) Internet Browsing/applications
- c) Gaming
- d) Text messaging
  
- e) Music
- f) FM radio

**8. What is your monthly maintaining cost for using a mobile phone?**

**Answer:**

- a) Below Rs. 100
- b) Rs. 101-200
- c) Rs.201-300
- d) Above Rs.300

**9. If you don't use a mobile, what are the reasons for not doing so? (You can choose Several options)**

**Answer:**

- a) I don't like using a mobile phone.
- b) My parents don't allow me to use a mobile
- c) I can't afford a mobile phone)
- d) Others(specify)-----  
-----

**Section - C: General Usage Pattern of Computer and Internet ("✓" in your answer)**

**10. Have you undergone any computer course?**

**Answer:**

- a) Yes
- b) No

**11. If yes, then which of the following applications do you use in a computer? (You can choose Several options)**

**Answer:**

- a. Word processor (Word, Open Office Writer etc).
- b. Spreadsheet (Excel, Open Office Calcite).
- c. Image editors (Photoshop, Gimp etc.)
- d. I have never used any computer applications
- e. Others (Please specify-----  
-----)

Answers:

- a) Yes
- b) No

13. What type of Internet Connection do you use?

Answer:

- a) Broadband
- b) Dial-up
- c) Mobile devices
- d) Other, (please specify-----  
-----)

14. What is your main purpose for using the Internet?

Answer:

- a) Shopping
- b) Work
- c) Education
- d) Hobby
- e) Exam purpose
- f) Pornography

15. If yes, rank the following internet services according to your use.

Answer: Search and so on

- a) Chatting
- b) Email
- c) Social Network
- d) You Tube

16. Others (Please specify) -----

17. Which of these statements best describe the way you feel about the internet?

Answer:

- a) I feel very confident about using the internet.
- b) I feel I can manage somewhat.
- c) I'm not confident.

18. For how long have you been using the internet?

Answer:

- a) For less than one year.

- b) For more than one year.

**19. How often do you use the Internet?**

**Answer:**

- a) Frequently
- b) Occasionally
- c) Rarely

**20. From where do you access the internet?**

**Answer:**

- a) Home
- b) College
- c) Internet café
- d) Hostel
- e) Others (Please specify)-----  
-----

**21. Which are the websites you visit frequently? (Please specify 3 names)**

**Answer:**

- a) -----
- b) -----
- c) -----

**22. If no, which of the following factors affect your internet usage? (You can choose Several options)**

**Answer:**

- a. I'm not interested in internet
- b. My parents do not approve of me going to internet cafes.
- c. I don't like going to internet cafes.
- d. I'm afraid what others will think of me when I go to an internet cafe.
- e. I don't know to use the internet at all.
- f. There is no one to show me how to use the internet.
- g. I don't have the money to pay at internet cafes
- h. Others (Please specify)  
.....  
.....

**23. Does anyone in your immediate family use the internet?**

**Answer:**

- a) Yes
- b) No

**24. If yes, how is he/she related to you?**

**Answer:** -----  
-----

**25. Whether your institution supports the use of computer/internet among the students?**

**Answers:**

- a) Yes
- b) No

**26. According to you, how does the internet support in education?**

**Answer:**

- a) Search your subject material
- b) Help for project paper preparation
- c) Admission and examination and result purpose
- d) Don't know
- e) Others (Please specify-----  
-----)

**27. Do you think college students should be provided training in computers and the internet?**

**Answer:** -----  
-----

**28. In your opinion, how does the internet support employment opportunities?**

**Answer:** -----  
-----

**29. On average, how many hours per day do you spend on the Internet?**

**Answer:**

- a) Less than 1 hour
- b) 61min.-2hours
- c) 2hour 1 min.-3 hours

- d) 3-hour 1 min -4 hours
- e) More than 4 hours

**30. Do you use a webcam?**

**Answer:**

- a) Yes
- b) No

**31. If yes, then why do you use a webcam for?**

**Answer:**

- a) video chatting with your friends
- b) Any academic purpose
- c) Any official purpose.
- d) Others(Please specify) -----  
-----

**32. Have you received lessons on how to use the Internet?**

**Answer:**

- a) Yes
- b) No

**33. Have you received lessons on how to stay safe on the Internet?**

**Answer:**

- a) Yes
- b) No

**34. Please state the three bad effects on the Internet.**

**Answer:**

- a) Waste of too much time
- b) Lack of face-to-face communication
- c) Lack of creativity
- d) Physical inactivity
- e) Decline of morality
- f) Cheated by an unknown person
- g) Others (Please specify) -----  
-----

**Section- D: Usage Pattern of Internet and Mobile Phone in Educational Purpose ("✓" in your answer)**

**35. Do you think that student should use a mobile phone?**

**Answers:**

- a) Yes
- b) No

**36. If no, then why?**

**Answer:**

- a) Mobile phone should not be used in academic purpose.
- b) Don't know how to use academic purpose.
- c) Others(Please specify-----  
-----)

**37. If yes, then from which class student should use a mobile phone?**

**Answer:**

- a) Primary stage.
- b) High school stage
- c) Higher Secondary stage
- d) Graduation stage
- e) Post-Graduation stage.

**38. Do you use a mobile phone in educational purpose?**

**Answers:**

- a) Yes
- b) No

**39. If yes, then how can you use?**

**Answer:**

- a) Make a call to your teacher to understanding your problems.
- b) Make a call to your friend to know about lesson while you absent in the college.
- c) Searching materials from the internet.
- d) Searching result by using internet
- e) Others (Please specify)-----  
-----

**Section - E: Usage Pattern of Internet and Mobile Phone in Social Aspect ("✓" in your answer or answers)**

**40. Do you share your mobile phone?**

**Answer:**

- a) I do not share my mobile phone with anyone.
- b) I share my mobile phone. (Please specify the relationship below)

-----

-----

**41. Why did you acquire or start using a mobile phone?****Answer:**

- a) To use in case of emergency or personal safety
- b) To keep in touch with parents
- c) For information access
- d) To keep in touch with friends and other social contacts
- e) Others (Please specify-----)

**42. What are your common mobile phone usage scenarios? (You can choose Several options)****Answer:**

- a) staying in touch with friends
- b) Staying in touch with family
- c) For education and knowledge
- d) Updates sports scores and news
- e) Check email
- f) web-browsing
- g) Listen to music or radio
- h) Watch video
- i) Calendaring and appointments
- j) Clock and alarm
- k) Purchase tickets (movies, concerts, sports, etc.)
- l) Net banking
- m) On line shopping or paying bills
- n) Other (Please specify) -----

**43. Do you use any other features of your mobile or smartphone? If so, how much time do you spend on this feature?**

| Functions | Don't use it | Less than 30 min | From 30 min to 1 hour | From 1 to 2 hours | More than 3 hours |
|-----------|--------------|------------------|-----------------------|-------------------|-------------------|
|           |              |                  |                       |                   |                   |

|                                       |  |  |  |  |  |
|---------------------------------------|--|--|--|--|--|
| <b>Camera</b>                         |  |  |  |  |  |
| <b>Internet browsing/applications</b> |  |  |  |  |  |
| <b>Gaming</b>                         |  |  |  |  |  |
| <b>Text messaging</b>                 |  |  |  |  |  |
| <b>Whatsapp</b>                       |  |  |  |  |  |
| <b>calling</b>                        |  |  |  |  |  |
| <b>Face book</b>                      |  |  |  |  |  |
| <b>Others utilities</b>               |  |  |  |  |  |

**44. Do you use a mobile phone to make call your friends?**

**Answer:**

- a) yes
- b) No

**45. If yes then, normally why do you call your friends? (Several answers possible)**

**Answer:**

- a) For gossiping
- b) For educational enquiries.
- c) To know anything
- d) To inform something.
- e) Any other cause. (Specify please -----  
-----)

**46. Do you use a mobile phone to call your relatives?**

**Answer:**

- a) yes
- b) No

**47. If yes then, normally why do you call your relatives?**

**Answer:**

- a) For gossiping
- b) For formality maintaining.
- c) To know anything

- d) To inform anything.  
 e) Any other cause. (Specify please -----  
 -----)

**48. If no, then, why you don't call your relatives?**

**Answer:**

- a) You don't have relatives  
 b) You don't like to make call your relatives.  
 c) It is costly to you.  
 d) Any other cause. (Specify please -----  
 -----)

**Section - F: Usage Pattern of the Internet and Mobile Phone**  
**Entertainment Purpose ("✓" in your answer or answers)**

**49. What do you like doing most online? (You can choose Several options)**

**Answer:**

- a) Chatting  
 b) Blogs  
 c) Music  
 d) News  
 e) Instant Messenger (e.g., WhatsApp, Yahoo)  
 f) Gaming  
 g) File Sharing  
 h) Shopping  
 i) Social Networking (e.g., Facebook, Myspace)  
 j) Web browsing  
 k) Internet TV  
 l) Other (please specify-----)

**50. How often do you use...?**

| Features | Everyday | More<br>than once<br>a day | Once<br>week | a | Once<br>month | a | more than<br>once<br>a<br>month |
|----------|----------|----------------------------|--------------|---|---------------|---|---------------------------------|
| Chatting |          |                            |              |   |               |   |                                 |

|                         |  |  |  |  |  |
|-------------------------|--|--|--|--|--|
| Instant messenger       |  |  |  |  |  |
| Blogs                   |  |  |  |  |  |
| Web Browsing            |  |  |  |  |  |
| File Sharing            |  |  |  |  |  |
| Shopping                |  |  |  |  |  |
| Internet TV             |  |  |  |  |  |
| News                    |  |  |  |  |  |
| Social Networking sites |  |  |  |  |  |
| Gaming                  |  |  |  |  |  |

**51. Do you have any email id?**

**Answer:**

- a. Yes
- b. No

**52. If yes, then which purposes you use your email id?**

**Answer:**

- a. Receive information and data
- b. Send information and data
- c. From flab for comparative examinations
- d. Any other

**53. How often you use your email id?**

**Answer:**

- a. Daily
- b. Weekly
- c. Monthly
- d. Occasionally

**54. If no, then why you don't have any email id?**

**Answer:**

- a. No needs
- b. Not interested
- c. Don't know how to use it
- d. Lots of time lost

- e. Any other cause. (Specify please-----  
-----)

**55. Do you use WhatsApp?**

**Answer:**

- a) Yes
- b) No

**56. If yes, then normally why do you use WhatsApp? (You can choose Several options)**

**Answer:**

- a) For gossiping
- b) For formality maintaining.
- c) To know anything
- d) To inform anything.
- e) For time pass.
- f) Any other cause. (Specify please-----  
-----)

**57. In a day normally how long do you use WhatsApp?**

**Answer:**

- a) Less than one hour
- b) One-hour One mint to 2 two hours
- c) Two one mint to Three hours.
- d) Three one mint to four hours.
- e) Above five hours.

**58. If no? Then, why you don't use WhatsApp?**

**Answer:**

- a) You don't have the facilities on your mobile phone
- b) You don't like to use WhatsApp.
- c) It is costly to you.
- d) Any other cause. (Specify please-----  
-----)

**59. Do you use Facebook?**

**Answer:**

- a. Yes
- b. No

**60. If yes, then which purposes you use Facebook?****Answer:**

- a. For time pass
- b. Entertainment
- c. Update information
- d. know anything
- e. To share anything
- f. Make friends
- g. Growing up virtual relation world
- h. pornography
- i. Any other

**61. How often you use Facebook?****Answer:**

- a. Daily
- b. Weekly
- c. Monthly
- d. Occasionally

**62. If don't use, then why?****Answer:**

- a. No using facility
- b. Not interested
- c. Don't know how to use it
- d. Any other cause. (Specify please-----  
-----)

**63. What is the main way of communication with your offline friends? (You can choose Several options)****Answer:**

- a) Voice call (Mobile)
- b) The video call (Mobile)
- c) SMS
- d) Email
- e) Instant Messaging
- f) Skype
- g) Chat Rooms
- h) Others

**64. Have you ever met someone in the real world to whom you are connected online?**

**Answer:**

- a) Yes
- b) No

**65. How many online contacts do you have that you have not met in the real world?**

**Answer:**

- a) Below 50
- b) 51-100
- c) 101-200
- d) Above 200

### **Section - G: Usage Pattern of the Internet and Mobile Phone**

#### **Commercial Purpose ("✓" in your answer or answers)**

**66. Have you used a mobile phone any commercial aspects?**

**Answer:**

- a) yes
- b) No

**67. How often do you use online services?**

**Answer:**

- a) Daily
- b) Weekly
- c) Monthly
- d) Never
- e) Ocuanilly

**68. Have you ever done any online Transaction? (i.e. Mobile banking, Paytm etc.)**

**Answer:**

- a) Yes
- b) No

**69. Have you got one particular favourite item that you normally like purchasing online?**

**Answer:**

- a) Books
- b) Electronics
- c) Vouchers
- d) Dress materials and clothes
- e) Other, please specify:

**70. What would be your best payment method if you buy online?**

**Answer:**

- a) Paytm
- b) Debit / Credit Card
- c) Cash on delivery
- d) Postal Draft
- e) Others

**71. Which of these websites have you already used or visited? (You can choose Several options)**

**Answer:**

- a) Amazon
- b) Flipkart
- c) Home shop 18
- d) I have never used or visited any of these websites
- e) Others

**72. Which are the advantages of online shopping?**

**Answer:**

- a) Having comparison shopping
- b) Getting the latest product information
- c) Time-saving
- d) Money-saving
- e) 24-hour accessibility
- f) Other (Specify please-----  
-----)

**73. Did you personally participate in any purchases on the Internet in the past 6 months?**

**Answers:**

- a) yes
- b) No

**74. If “yes”, then approximately how many times have you purchased any product through the Internet in the last 12 months?**

**Answer:**

- a) 1 time
- b) 2 to 3 times
- c) 4 to 8 times
- d) 9 to 12 times
- e) Over 12 times

**75. If “no” What is the reason that you have never bought online?**

**Answer:**

- a) I don't know about online shopping
- b) Internet illiteracy
- c) Others reasons (Specify please -----  
-----)

**76. Do you think using the Internet for shopping and banking would make your life easier?**

**Answer:**

- a) Very likely
- b) Partially likely
- c) Likely modify all accordingly
- d) Partially unlike
- e) Very unlikely

### **Section - H: Health Issues Due to Use of Internet and Mobile phone** **(" ✓ " in your answer or answers)**

**77. Do you feel any physical or health problem to use mobile/smartphone and internet?**

**Answer:**

- a) Yes
- b) No

**78. If yes, then what are the problems you feel?**

**Answer:**

- a) Yea problem
- b) Head pen
- c) Hear pen
- d) Others

**79. Do you know overusing mobile/smartphone and internet can damage your major health problem?**

**Answer:**

- a) Yes
- b) No

**80. If yes, then what are the chances of major problems for overusing mobile/smartphone and internet?**

**Answer:**

- a) Brain tumour
- b) Cancer
- c) Electromagnetic interference
- d) Traffic accidents

**81. Do you know in sleeping time your mobile/smartphone always should keep some minimum distance from you?**

**Answer:**

- a) Yes
- b) No

**Section – I: Psychological and Personal Issues Due Use of Internet and Mobile phone ("✓" in your answer or answers)**

**82. When is your mobile phone turned off? (You can choose Several options)**

**Answers:**

- a) my phone is never switched off
- b) during the time in class
- c) At work
- d) At the playground or any entertain place
- e) Sleeping time
- f) Other (specify please -----  
-----)

**83. If you're smart or mobile phone never switch off? Then, why you Switch-on your mobile phone always?**

**Answer:**

- a) To use any time.
- b) To receive an incoming call.
- c) Any other cause (Specify please-----  
-----)

**84. When is your mobile phone likely to be in mute or vibration mode? Mark one or more scenarios as appropriate. (You can choose Several options)**

**Answer:**

- a) my phone is never in mute or vibration mode
- b) During the time in class
- c) At the playground or any entertain place
- d) Sleeping time
- e) Other (specify please -----  
-----)

**85. Have you used your mobile phone during the period of danger or emergency? Answer:**

- a) yes
- b) No

**86. ) If yes, then using a mobile phone in an emergency you overcame from that condition.**

**Answer:**

- a) yes
- b) No

**87. Do you think that in emergency everybody should have a mobile phone?**

**Answer:**

- a) yes
- b) No

**88. What would you describe as the main benefits of using the internet on your mobile phone? (You can choose Several options)**

**Answer:**

- a) It's accessible everywhere
- b) I can search for information that I need urgently
- c) It is a way to pass my time (e.g., transport, queue, etc)
- d) It allows me to use online utilities when I am out
- e) Other, (please specify-----  
-----)

**89. When you forget to carry your mobile phone while you are outside, then how have you felt? (Please write your feelings in brief)**

**Answer:**

.....  
.....

**90. Do you think that mobile phone and internet can help to overcome from loneliness?**

**Answer:**

- a) yes
- b) No

**91. If certainly, you lose your mobile phone, then how would you feel?**

**Answer:**-----  
-----

**92. Do you think that mobile phone and internet make any changes in your life in any aspects?**

**Answer:**

- a) yes
- b) No

**93. If yes then, what are the changes that take place in your life through a mobile phone?**

**Answer:**-----  
-----

**94. Do you think that the mobile phone and the internet is now an important part of your life?**

**Answer:**

- a) yes
- b) No

**95. If yes then, please explain briefly.**

**Answer:** -----  
-----

**96. If no then, please comment.**

**Answer:** -----  
-----

**97. Dou you think that smartphone and 4G networks can change your status?**

**Answer:**

- a) yes
- b) No

**98. In using smartphone and internet have you felt any problems?**

**Answer:**

- a) yes
- b) No

**99. If yes then, please explain in your own opinion.**

**Answer:** -----  
-----

**Thank you**

# USAGE PATTERNS OF MOBILE PHONE AND INTERNET AMONG MARGINALISED COLLEGE STUDENTS: A CASE STUDY IN MALDA DISTRICT, WEST BENGAL

*By samir biswas*

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