CHAPTER II
REVIEW OF LITERATURE
2.1. Introduction

The rapid expansion and the fundamental impacts of the Internet on societies have attracted many social scientists during the last twenty-five years. Among all, media scholars were the first social scientists who began to study the Internet. Before the advent of the Internet, media scholars were concerned with the effects of television and film on societies and were well aware about the social and cultural power and influences of these medias (Gerth, 2009). Very soon after the advent of the Internet, they realized that the Internet was a "new media" with remarkable impacts on societies and accordingly, they began their studies on the Internet.

Comparing with the media scholars, anthropologists, such as many other social scientists were initially reluctance to accept the Internet as a subject of study; the Internet was seen as a powerful tool to enhance academic achievement rather than a new field of study (Gerth, 2009). The Internet could provide faster and wider communication facilities which were highly welcomed as a complementary tool for social research.

At this stage, anthropologists could not accept (theoretically and methodologically) that the Internet can be a subject of anthropological inquiry. But gradually, a number of anthropologists challenged this idea. Since the mid 1950s, several anthropologists began studying technology and its effects particularly in developing countries and ethnic groups. Later, the emergence of high-technologies gradually steered these scholars to pursue their researches on the framework of several independent scientific programs and study groups such as the Society for the Social Studies (SSSS) or Science and Technology Studies (STS) (Budka and Kresmer, 2004). Early anthropological efforts to study the Internet and its socio-cultural dimensions began by this group of anthropologists.

Pioneering anthropologists such Arturo Escobar and David Hakken recognized anthropology as a discipline “well placed for the study of the Internet” (Escobar et al. 1994) and urged other anthropologists to study the Internet as a new field of anthropological inquiry. These initial efforts to convince other anthropologists to rethink their disciplinary procedures continued with the growing acceptance of the Internet as a
“new domain in anthropological inquiry” by some other anthropologists. These anthropologists began their efforts to evaluate the existing theoretical and methodological frameworks to study the Internet along with working on new theoretical perspectives and methodological approaches to study the Internet. Here, some of these anthropological efforts to enhance the theoretical and methodological frameworks to study the Internet have been reviewed.

2.2. Chronological review of the literature

Blair (1995) portrayed the opportunities on conducting anthropological studies about the Internet. Blair argued that in order to conduct effective studies about the Internet, by emphasis on empowering students with ethnographic methods. Blair discussed about how this method could provide considerable chance for students “to acquire new knowledge about their own cultural assumptions”.

Ito (1996) was among the pioneering anthropologists who discussed about the challenges of anthropological studies on the Internet. She argued that more emphasis must be on “theoretical engagement with the technologies and semiotics of digital information and their relation to material and social realities” (Ito, 1996). Ito invited other anthropologists to redefine methodological concepts in anthropology such as "fieldwork" and "participant observation" in order to match the new domain of anthropological study on the Internet.

Lindlofa and Shatzerb (1998) examined some strategies in media ethnographic with particular concerns about virtual space and the Internet. They discussed about four areas of ethnographic engagement including the nature and boundaries of virtual community, the social presence of participation, social strategies of entry and membership, and technical utilities of data generation.

Jones (1998) in his book *Doing Internet Research: Critical Issues and Methods for Examining the Net* discussed the methodological issues which anthropologists may encounter in studying the Internet and the social processes on the Internet. (Markham, 1998) was one of the anthropologists who discussed about the intersection of
ethnography and the Internet to recommend an ethnographic approach to study the Internet. In her book, *Life Online: Researching Real Experience in Virtual Space* she argued that the best strategy to understand the Internet is immersion into the online space through conducting ethnographies.

 Marcus (1998) was another anthropologist who discussed about the advent of a new ethnographic trend in anthropology to adapt with the Internet and online space. Marcus was one of the anthropologists who suggested the effectiveness of “multi-sited” ethnographies approach on studying the Internet.

 In his classic book *Cyborgs @ cyberspace?: an Ethnographer Looks to the Future*, (Hakken, 1999) argued other anthropologist to rethink the traditional separation of anthropology and technical issues.

 Wittel (2000) discussed about the implications of new “fieldwork” in virtual settings for ethnographic practice by addressing the new challenges of traditional ethnographies due to proliferation of virtual interaction on the Internet.

 In her classic book, *Virtual Ethnography*, (Hine, 2000) challenged the dominant idea about ethnographic studies of the Internet and argued that an ideal study of the Internet should encompass a bilateral interpretation of the Internet, both as a “cultural artifact” and as a “culture”. Hine shows that the Internet is both a site for cultural formations and a cultural artifact which is shaped by people's understandings and expectations.

 Ruhleder (2000) outlined the fundamental concepts on ethnographic study on the Internet and virtual space and suggested that anthropologist require rethinking concepts of "presence" and “colocation”. Ruhleder suggested that an ideal ethnographic study of the Internet needs to intertwine real and virtual spaces as participants move materials and information between the two spaces.

 DiMaggio et al. (2001) focused on the implications of the Internet on domains of inequality, social capital, political participation, organizations, economic institutions, cultural participation and cultural diversity. (Bowker, 2001) investigated the extent to
which chat room participants took advantage of the online medium to explore their identity through an in-depth quantitative survey of chat rooms and interviewing experienced chat room users.

Maczewski (2002) interviewed young Internet users to know about their online experiences, their online interactions and how they perceived these interactions have influenced their lives. Maczewski highlighted concepts such as “wowness”, experiences of freedom, power, and connectedness, self and identities as the major discussed concepts in interviews. (Howard, 2002) suggested “social network analysis” as an effective methodological strategy on ethnographic studies of the Internet.

*The Anthropology of Online Communities* edited by (Wilson and Peterson, 2002) was a review in which anthropological questions, approaches, and insights about studying the Internet were discussed.

Crichton and Kinash (2003) discussed about the processes in conducting online, textual and interactive interviews in the framework of virtual ethnographies. They argued that online interviews “sustain conversations beyond the scope of traditional face-to-face interviews” and are effectively adopted on studying the Internet.

Leander and Mc Kim, (2003) discussed about the need to move beyond place-based ethnography and developing ethnographic methodologies that follow the moving, traveling practices of users across online and offline spaces. They challenged to traditional ethnographic constructs such as place, identity, and participant observation on studying the Internet. They also discussed about traditional ethnographic concepts such as place, identity, and participant observation and criticized the “common misconception of the Internet as somehow radically separate from everyday life”.

Al-Saggaf (2004) conducted a study in Saudi Arabia during 2001 – 2002 to understand how "online communities" in Saudi Arabia were affecting the society. He highlighted “gaining self-confidence, becoming more open-minded, becoming more aware of the personal characteristics of individuals within society and becoming less inhibited about the opposite gender” as the major "positive effects" of the Internet in
Saudi Arabia and “neglecting family commitments, becoming less shy and becoming confused about some aspects of culture and religion” as the major "positive effects" of the Internet in Saudi Arabia.

Sade-Beck (2008) proposed a new methodology for qualitative research on the Internet, based on the integration of online and offline qualitative data-gathering methodologies which they believed could enable the creation of rich ethnography of the Internet. They borrow the concept of “thick description” from Clifford Geertz (1973) and argued that an ideal anthropological study of the Internet should not be limited to the Internet alone.

Buchanan (2004) in her book *Readings in Virtual Research Ethics: Issues and Controversies* discussed about the ethical considerations in the field of virtual research such as autonomy or respect for persons, justice, beneficence, informed consent, privacy, ownership of data, and research with minors. (Beaulieu, 2004) discussed about the anthropological methods to study the cultures of the Internet and how these methods of studies of technology relate to modernist discourse about the value of technology for producing a particular kind of objective knowledge.

Orgad 2005 offered a detailed exploration of the problems and opportunities surrounding Internet-based research with particular concern on how offline and online observations can be combined in a virtual ethnography. (Carter, 2005) discussed about “the issues involved in the development of human relationships in cyberspace”. He suggested a methodological approach which is a combination of ethnographic research in virtual community, with face-to-face meetings. Carter also provide a case study of his suggested approach on *Cybercity* which is a virtual community.

Tuszynski (2006) discussed the real-virtual binary as the theoretical framework to studies of online social activity. By utilizing interviews and archival information, Tuszynski examined this theoretical framework to show how Internet users combine online and offline social activity seamlessly. (McCoyd and Kerson, 2006) examined email interviewing and compared it with traditional methods of interviewing such as
telephone and face-to-face interviewing to analyze the advantages and disadvantages of each type of interviews.

Androutsopoulos (2006) focused on linguistic diversity on websites maintained for and by members of diaspora groups in Germany through an online ethnography and an interpretive approach. (Paccagnella, 1997) concentrated on a case study on an Italian computer conference to examine the new graphical CMC environments and their consequences for the rise of a multimedia cyber-anthropology.

Rybas and Gajjala (2007) discussed about “the intersection of local/global and online/offline environments” in the framework of Internet studies and suggested that to study the production of identity in online space, researchers must engage in the production of culture and subjectivity in the specific context of new socio-economic environments emerged due to advent of the Internet.

Williams (2007) concentrated on the application of “participant observation” in virtual ethnographies and discussed about the methodological aspects of anthropological studies of the Internet. (Isabella, 2007) focused on MUDs (Multi User Domains) to analyze certain social challenges associated with Internet-based communication with particular attention to the concept of online game through a comparison between an Italian and Canadian MUDs. (Fay, 2007) conducted a ethnographic study of the International Women's University "Technology and Culture" (ifu) and its virtually extended network. She offered description of the methodological considerations and challenges she was confronted with during this research.

Androutsopoulos (2008) discussed about discourse-centred online ethnography, “a combination of systematic observation of online activities and interviews with online actors, which was developed as a complement to the linguistic analysis of log data”. Her work was highly concentrated on German-based websites of hip-hop and diaspora groups and suggested that ethnographic insights may supplement and support the linguistic analysis of online data.
In his book, *The Ethnography of Communication: An introduction*, (Saville-Troike 2008) presented the terms and concepts which are essential for discussing how and why language is used in investigating the communicative behavior in different cultural settings. This book was not directly contributed on virtual ethnography literature, but many of the discussed concepts are valuable on a virtual ethnography research.

Postill (2008) conceptualized “Internet localization” through drawing inspiration from the field theories of both Pierre Bourdieu and the Manchester School of Anthropology through conducting fieldworks in Malaysia. Suggesting the Internet as an inseparable part of everyday lives, rather than an alternate world (Wellman and Haythornthwaite, 2008) in their book *The Internet in Everyday Life* discussed about the processed and implications of embedding the Internet on everyday lives of Internet users.

Corneliussen and Walker Rettberg (2008) studied the “World of Warcraft” (a digital game environment) through immersion into the game universe and spending hundreds of hours as players, conducting interviews, and studying the game design to describe the complexity of digital game environments.

On their review, *Internet Inquiry: Conversations About Method*, Markham and Baym, (2008) collected a group of discussions by important Internet researchers about how they have worked through critical challenges as they studied online social environments. In his book *Coming of Age in Second Life: An Anthropologist Explores the Virtually Human* (Boellstorff, 2008) discussed about the emergence of “virtual culture”, its importance as a field of study and the theoretical and methodological considerations in this new field of study. He particularly emphasized on issues of gender, race, sex, money, conflict and antisocial behavior, the construction of place and time, and the interplay of self and group in “Second Life” which is a virtual community on the Internet.

Burrell (2009) explored a variety of strategies devised by researchers to conduct social researches on “virtual networks” as the field of study, its benefits and its consequences. Burrell argued that virtual networks – field site – are incorporation of physical, virtual, and imagined spaces. (Gerth, 2009) studied Zoroastrians on the Internet as a small ethno-religious diaspora and found that “Zoroastrians maintain group
boundaries and cohesion in the modern world, in part, through utilizing the Internet to provide resource sites, communities of affirmation, social networking resources, and through its function as a transmovement space facilitating face to face contact”.

Garcia et al (2009) reviewed ethnographic research on the Internet and computer-mediated communication arguing that in the online environment direct interaction with participants is replaced by computer-screen data that are largely textual, along with other combinations of visual, aural, and kinetic components. In his classic book, *Netnography: Doing Ethnographic Research Online* (Kozinets, 2009) suggested the term Netnography to address conducting ethnographic researches on the Internet to study cultures and communities online. In his this book, Kozinets provided step-by-step guidelines to introduce, explain, and illustrate the “Netnography” method.

Jordan (2009) discussed about the blurring boundaries and the fusion of the real and the virtual in the Internet and argues that conducting research on such syntax space require rethinking about ethnographic methods. Jordan specifically examined some of the issues that arise in and for online and offline research. (Buchanan and Ess, 2009) provided one of the most comprehensive discussions about the ethical dilemmas on Internet research.

Lasén, and Gómez-Cruz (2009) discussed about the role of digital photography in the framework of public/private discourse and the transformation of privacy and intimacy, especially with the convergence of digital cameras and mobile phones. They argued that the proliferation of digital photography and photo sharing are examples which show online and offline practices and experiences can be intertwined and challenge the traditional concepts of public and private.

Dirksen et al (2010) examined the concept of “connective ethnography”. In the concept of connective ethnography, they emphasized on sensitivity to ‘making of context’ includes both the sense of a local physical context as well as the increasing connections between information resources in the form of people, systems and texts.
Boellstorff (2010) outlined a typology of genres of virtual ethnographies on virtual communities particularly on Second Life, with special extensive concentration on Indonesia.

Farnsworth and Austrin (2010) compared the two notions of “multi-sited” ethnography with “actor network” theory’s method with particular concerns on global online poker communities. (Coleman, 2010) contributed on the methodological discussions about virtual ethnographies by categorizing virtual ethnographies into three broad but overlapping categories: “the cultural politics of digital media, the vernacular cultures of digital media, and the prosaic of digital media”.

Driscoll and Gregg (2010) recommended specific anthropological approach to studying culture in online space through particular concentration on intimacy that online spaces can produce. (Lopez-Rocha, 2010) examined the theoretical implications of virtual ethnography and its application in anthropology and other social sciences.

Evaluating Michael Burawoy’s ‘global’ and George Marcus’ ‘multi-sited’ ethnographic approaches to study mobile phone culture (Blok, 2010) discussed about the inspirations of the both approaches. Blok mentioned that neither methodological approaches has sufficiently analyzed the local-global dichotomy and he suggested an alternative framework for mobile ethnography, better suited to a social world conceived in network-relational terms.

Beneito-Montagut (2011) discussed about ethnographic methodology of online communication and how it can be applied “appropriately to the study of relationships online”. Beneito-Montagut offers a “user-centered” approach to study interpersonal communications on the internet and suggested the use of three main strategies to pay tribute to the characteristics of uses online: multi-situated, online and offline, and flexible and multimedia data collection methods.

In her book, *Cases in Online Interview Research*, (Salmons, 2011) discussed about how to utilize online interviews in research by mentioning 10 research projects in
which online interviews were conducted on text-based online ecosystem, virtual environments, and videoconferencing platforms.

_Tales from Facebook_ by Daniel Miller (2011) is another pioneering book by one of the most influential anthropologists who study the Internet and online culture. In this book Miller showed “how Facebook can become the means by which people find and cultivate relationships” and examined in detail how Facebook transforms the lives of particular individuals. He also discussed about the consequences of social networking in the future.

Turkle (2011) in her book _Life on the Screen_ discussed about “how computers are causing us to reevaluate our identities in the age of the Internet” and examined “changing impacts of the computer on our psychological lives and our evolving ideas about minds, bodies, and machines”. (Hine, 2011) discussed about ethnographic studies of individual online fan groups. Her aim in this study was about how to use ethnographic studies of the Internet for television studies.

Ardèvol and Gómez Cruz (2012) presented a number of examples from ethnographic fieldwork with a group of amateur photographers in Barcelona and showed that the practice of digital photography moves away from a representational or semiotic approach towards a performative approach. (Mkono, 2012) examined the opportunities and challenges of Robert Kozinet’s netnographic approach in the field of tourism research and argued that netnography is a highly effective and useful methodology in tourism research.

Boellstorff et al. (2012) on their book, _Ethnography and Virtual Worlds: A Handbook of Method_ provided a practical guide for students, teachers, designers, and scholars who are interested in using ethnographic methods to study online virtual worlds. They offered tips and guidelines for ethnographic research of online space with specific focus on participant observation.

Steinmetz (2012) provided insights into three specific facets of virtual ethnography that need attention including 1) space and time, 2) identity and authenticity,
and 3) ethics. (Schrooten, 2012) conducted a virtual ethnography to study the significance of the Internet and more specifically, social network sites, in the experience of many migrants and discussed about how “online togetherness” is an integral part of the lives of migrants which also interrelates with ‘offline’ aspects of their social lives.

In her book, The Internet (Hine, 2012) focused on the process of writing qualitative research on the Internet, from the construction of the initial proposal to the preparation of different types of research reports, including conventional dissertations and more innovative media forms including ethnographic, interview-based, and documentary analysis. In this book, Hine offers clear guidance on the challenges and opportunities posed by the application of these approaches to Internet settings, drawing on a wide array of published examples.

Strangelove (2012) introduced a new technique for exploring Internet culture that he called “virtual video ethnography” which was the recording of human interaction from within virtual realms such as online war games, fantasy role playing games, and virtual social networking games. Strangelove portrayed great functionality of virtual video ethnography for cultural analysis.

Postill and Pink (2012) In this article, we respond critically to existing literatures concerning the nature of the internet as an ethnographic site by suggesting how concepts of routine, movement and sociality enable us to understand the making of social media ethnography knowledge and places. (Kirmayer et al. 2013) discussed about different concepts due to the advent of the Internet such as transforming human functioning, personhood, and identity, new groups and forms of community, shifting notions of public and private, local and distant and Internet addiction. They also discussed about the use of the Internet in mental health care.

Baker (2013) proposes a three-part conceptualization of the use of Facebook in ethnographic research: as a tool, as data and as context. She proposed that Facebook offers a resolution to challenges of virtual ethnography such as maintaining channels of communication and high rates of participant attrition.
Jerry (2013) examined research methods in virtual world, with an emphasis on examining human-avatar behavior in cyber space. The discussion includes issues of communicating research ethics and post-research interaction with participants. (Shumar and Madison, 2013) situated the discussion of virtual ethnography within the larger political economic changes of twenty-first century, consumer capitalism and suggested.

*Digital Anthropology* was a review by Heather A. (Horst and Miller, 2013) which provided insights from several key anthropologists working with digital culture. Through a range of case studies from Facebook to Second Life to Google Earth this review explores how human and digital can be defined in relation to one another. In a virtual ethnography of Japanese gays on the Internet (McLelland, 2013) investigated how “Japanese and foreign gay men can meet” on the Internet. They suggested that the Internet has made it possible to reach and work with a wider variety of Japanese gay men than it was previously possible.

Hallett and Barber (2013) discussed about how to integrate data from online spaces into “traditional” ethnographic research. They argue that better understanding of online space needs better understanding of physical environments. They also believed that while traditional methods of ethnography continue to be useful, researchers need to re-conceptualize space as well as what counts as valuable interactions, and how existing (and new) tools can be used to collect data. (Yukari Seko, 2013) examined user-generated photographs of self-injury (SI) uploaded on a popular photo-sharing site, Flickr.com, to explore how the photo uploaders represent their wounded bodies.

Keim-Malpass et al. (2014) conducted a virtual ethnography to study online illness blogs on the Internet. They discussed about the methodological considerations in virtual ethnography as an emerging qualitative method and its strengths and limitations to study online illness blogs. (Piacenti et al. 2014) discussed the creative utility of Facebook as a new ethnographic tool with particular concern to study transnational migration. They suggested that Facebook ethnography allows the migration researcher to overcome “four structural dualities that constrain transnational ethnographic research including: (a) geographic constraints, (b) travel funding constraints, (c) travel time constraints, and (d)
the logistical constraints of entrée into new ethnographic contexts. In her book, *Digital Literacies* (Gillen, 2014) discussed about the way interacting with digital and online media impact of our literacy and learning, writing and reading language online, digital technologies in everyday life, online teenage communities and professional use of Twitter in journalism, history of literacy studies and contemporary approaches to language online.

*Networked Anthropology: A Primer for Ethnographer* by Samuel Gerald Collins, Matthew Slover Durington (2014) is one of the most recent contributions in the field of Internet anthropology. Drawing on recent ethnographic work the authors provide practical guidance in creative ways of doing networked anthropology by evaluating.

### 2.3. Mobile phones study literature review

Mobile phones have been one of the particular focuses on anthropological studies of the Internet and online culture. Since 2007 and by the advent and proliferation of smart phones, smartphones are the dominant digital ecosystem and accordingly, more anthropologists tend to study the Internet on with particular concern with smart phones.

In another pioneering study, (Horst and Miller, 2006) discussed anthropological concerns about cell phone in their book, *The Cell Phone: Anthropology of Communication*. In this book, they traced the impact of the cell phone from personal issues of loneliness and depression to the global concerns of the modern economy and the trans-national family. They investigated the rapid adoption of cell phones and the patterns of mobile usage among low-in-come Jamaicans by conducting a virtual ethnography on Jamaica. They highlighted the importance of understanding the local incorporation of cell phones and local forms of networking.

Through an ethnographic study focused on the implication of mobile phone cameras, (Okabe, 2006) discussed about how using camera phone changes the dynamics of everyday lives. Based on data gathered from around the world, (Manuel et al. 2009) at their book, *Mobile Communication and Society: A Global Perspective* discussed about how the possibility of multimodal communication from anywhere to anywhere at any
time affects everyday life at home, at work, and at school, and raises broader concerns about politics and culture both global and local and the rise of a mobile youth culture and its possible political implications.

Beddall-Hill et al. (2011) focused on the development of Social Mobile Devices (SMD) as research methodologies to investigate learning process. They discussed about the constraints, affordances, and ethical issues inherent in the use of mobile based qualitative research through providing examples of practical data collection with Apple iPhones and Apple iPads.

Ling et al. (2011) edited a review *Mobile Communication: Bringing Us Together and Tearing Us Apart* by bringing together several researchers. In this review they covered a wide range of topics about “how mobile communication can both builds and destroys our sense of social cohesion”.

Drawing on a wide range of national, regional, and international examples Goggin. (2012) in his book *Cell Phone Culture: Mobile Technology in Everyday Life* provided a comprehensive, accessible, and international introduction to cell phone culture and provided a sophisticated overview of mobile telecommunications by putting the technology in historical and technical context.

Jung, (2013) conducted interviews with smart phone users to investigate what users do with smart phones, how users benefit from smartphones, and various values users achieve with smart phones. (Ahn and Jung, 2014) discussed about mobile phones addiction, common sense of dependence on mobile phones, and how the younger generation has a different understanding of mobile phone addiction comparing with the older generation.

### 2.4. Reviewing studies in India

Several social studies – e.g. anthropological studies –have been conducted to evaluate the process and dynamisms of the Internet in India. The following are some of the contributions. (Srikantaiah and Xiaoying, 1998) examined the role of the Internet in
various sectors such as health, public sector management, industry, environment, telecommunications, trade, with specific reference to China and India.

Press et al. (2002) compared the diffusion of the Internet in China and India and argued that China enjoyed a substantial lead over India. (Wolcott and Goodman, 2003) investigated the growth of the Internet in India from 1998 to 2003 and suggested that poverty and limited telecommunications infrastructure limited the rate and extent of Internet expansion in India.

In another comparative study conducted by (Suman et al. 2005) trends in the growth of Internet users and Internet connections in were compared in India and China. They confessed that “China holds the clear edge over India in terms of number of Internet users and Internet hosts; India is better rated when it comes to e-readiness”. Fusilier and Durlabhji, (2005) explored Internet acceptance use in India and the behavioral processes involved in this process.

Kumar and Kaur (2005) analyzed the use of the Internet and related issues among the teachers and students of engineering colleges of Punjab, India. In this research, they found that the Internet has turned to a necessary instrument in learning and teaching process and has fundamentally changed the dynamics of education.

Kumar and Thomas (2006) analyzed the social implications and public policy of the rapid growth of the mobile phones in India and China during the late 1990s and the early 21st century by political economic perspective. They also discussed about the digital gap between urban and rural areas and the impacts of such digital divide on economic development.

Rangaswamy (2007) conducted a study about internet cafés in India to investigate patterns of localization of information and to realize how information is being shared on public spheres. (Khandekar, 2010) focused on Indian techno-migration with particular emphasis on the transnational movements of Indian engineers between India and the United States.
Rangaswamy and Cutrell (2012) conducted an anthropological study of everyday mobile Internet adoption among teenagers in a low-income urban setting in India, and explored how information about everyday use of ICT technologies may be relevant for development research. (Doron, 2012) conducted an ethnographic research among low-income people in Northern India and analyzed the various ways through which mobile phones were integrated into their daily lives, courtship practices, marriage relations and kinship ties. (Athique, 2012) in his review, *Indian Media* discussed about India's popular culture and media industries by implementing an interdisciplinary approach, descriptive methods and critical analysis.

In their review, *Digital India: Understanding information, communication and social change* (Thomas and Ninan, 2012) examined the theory and practice of the digital social change in India with particular concerns over telecommunications, mobile phones, electronic governing, software patenting, public sector software and cultural piracy-offers.

*The Great Indian Phone Book* is one of most influential new anthropological contributions by (Doron and Jeffrey, 2013) in which they have investigated the social implications of cheap mobile phone in India by study the vast spectrum of dimensions of the mobile ecosystem from the ways ordinary people adopt mobile phones into their daily lives to the ways bureaucrats, politicians, marketers, agents, technicians, activists, businesses and households use mobile phones.