

# MOBILE PHONES AND CHANGING MEDIA CONSUMPTION PRACTICES IN BANGALORE

### A THESIS TO BE SUBMITTED TO MANIPAL ACADEMY OF HIGHER EDUCATION

FOR FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF THE DEGREE

DOCTOR OF PHILOSOPHY

BY

RASHMI M.

Registration Number 149001014

UNDER THE GUIDANCE OF **PROF. CAROL UPADHYA** 



SCHOOL OF SOCIAL SCIENCES
NATIONAL INSTITUTE OF ADVANCED STUDIES
BANGALORE, INDIA

**DECEMBER 2018** 



#### DECLARATION BY THE CANDIDATE

I declare that this thesis, submitted for the degree of Doctor of Philosophy to Manipal Academy of Higher Education, is my original work, conducted under the supervision of my guide Prof. Carol Upadhya. I also wish to inform that no part of the research has been submitted for a degree or examination at any university. References, help and material obtained from other sources have been duly acknowledged.

Candidate

Rashmi M.

Registration Number 149001014

14 December 2018



#### **CERTIFICATE**

This is to certify that the work incorporated in this thesis "Mobile Phones and Changing Media Consumption Practices in Bangalore" submitted by Rashmi M. was carried out under my supervision. No part of this thesis has been submitted for a degree or examination at any university. References, help and material obtained from other sources have been duly acknowledged.

Research Guide

Carol Upadhya

Professor

School of Social Sciences

Parol spackye

National Institute of Advanced Studies

Bangalore

14 December 2018

## **Table of Contents**

List of Figures	i
Acknowledgements	ii
INTRODUCTION	1
Parallel or mainstream digital?	4
Structure of the thesis	4
Chapter 1. BACKGROUND AND METHODOLOGY	8
Phone studies	8
Digitization, media convergence, and mobile phones	11
Mobile phones and the ICT4D debate	12
Objectives and research questions	16
Research questions	17
Research methodology	19
Theoretical orientation	20
Conceptualizing and mapping the field	21
Database	28
Methodological complexities and challenges	30
Chapter 2. REVIEW OF LITERATURE: SOCIALITY, INFORMALITY AND	
ACCUMULATION	32
Two Streams of Enquiry: Techno-sociality and Sociality of Technology	34
Access through use	36
Distinction of users based on access	38
Informality and Media Infrastructure	41
Piracy: Access by proxy?	42
Bangalore and informality of digital media use	46
Accumulation: Theorizing Digital Media and the Production of Value	
Mobile phones as access points to media infrastructure	47
Capitalism and ICTs: Conceptual differences and terminological shifts	
Capitalist accumulation and value generation with digital media technologies	55
Digital variant of capitalism and distribution of information goods	57
Chapter 3. THE DIGITALLY MARGINALIZED	62
The Urban Service Economy: Work and Media	63
Transport workers	66
Hotel and restaurant staff	75
Security guards	80
Street vendors	85

Domestic workers and housekeeping staff	87
Leisure and Media	
Sociality of mobile multimedia consumption	92
Mobile media practices in the changing urban context	
Chapter 4. THE INFORMAL OFFLINE MEDIA ECONOMY IN BANGALORE	96
Mapping the digital offline economy	
Media economies and informal distribution networks	
Mobile phone shops of the neighbourhood	
Extra-legal multimedia content business	
The pedagogical function of mobile phone shops	
Evolution of informal media markets in Bangalore	
Changing materiality of exchange of media content	
Chapter 5. CONTENT – CONSUMPTION COMMODITIZED	115
Content as an Information Good and Commodity	117
Value and information goods	119
The lifecycle of digital multimedia content	121
Distribution in the life cycle of content	122
New Age Practices: Content Production, Distribution, and Consumption	124
Extraction of value through property rights	129
Consumption Commoditized	142
From prosumption to extraction of value based on property rights	143
Transformations within content industry	149
CONCLUSION	151
In summary	157
APPENDIX: DATABASE	159
REFERENCES	161

# List of Figures

Figure 1. Micro-SD card used to store multimedia content on mobile phones	70
Figure 2. Audio jack connection cable to connect mobile phones to sound amplifie	r 70
Figure 3. Simple MP3 player with USB, FM radio, and an option for audio jack	71
Figure 4. Cheap USB micro-SD card readers which can be used as pen drives	71
Figure 5. Mobile phone shop front	102
Figure 6. Mobile phone accessories business	102
Figure 7. Mobile phone services and accessories with retail goods business	103
Figure 8. Home page of a Kannada distribution company YouTube channel	133
Figure 9. Full length movie upload by a Kannada distribution company	134
Figure 10. YouTube channel monetization	134
Figure 11. Google AdSense account	134
Figure 12. Homepage of a multichannel network, Shemaroo, on YouTube	136
Figure 13. Content on other web platforms linked from YouTube	138
Figure 14. Links to caller tune and ring tones from YouTube	139
Figure 15. Chart showing market share of content industry	141

#### Acknowledgements

This work has been supported by many individuals and institutions. I am fortunate to have worked with some of the best teachers throughout my education, and it is their belief in my abilities that has brought me this far. My advisor, Prof. Carol Upadhya, is one such great teacher whose influence on my thought and writing is enormous. I thank her for introducing me to anthropology through her class seminars and comprehensive reading lists, which gave me a solid foothold in concepts and methods of the discipline. In addition to classes and individual meetings with her, I have benefitted a lot from the interactions she organized with scholars from diverse disciplines. With her meticulous reading, infinite patience, and impeccable professionalism, she has shown and taught me what rigour means in the craft of research. Her questions, comments, corrections, and feedback on pretty much everything I have written in the past six years have built me as a researcher. The intellectual freedom and generosity I experienced under her training gave me wings to explore the world of ideas. Her commitment to research has inspired me to work hard at every phase of this project. I have relied on her unflagging support and encouragement to navigate the rough patches of the PhD programme. My training with her was full of opportunities for learning, and I continue to learn from her. I am forever grateful to her for many valuable lessons, which are going to guide me for the rest of my career.

Dr. Shivali Tukdeo's engagement with my ideas during weekly workshops of research methods course gave me confidence to conceptualize this work, especially at a time when my ideas were still nascent. Her friendly and emotional support during the writing phase was invaluable. Prof. Ravi Sundaram has been my mentor for the Social and Digital Media Fellowship offered by Sarai, CSDS. He has always watched out for me, gave me crucial feedback whenever I needed it the most. Prof. S.V. Srinivas has generously given me time for discussions. His questions were always difficult to answer, but they have helped me hugely in analysing the findings from the field, and theoretically frame my arguments. My conversations with Prof. Sundar Sarukkai have helped me overcome writer's block and develop a playful attitude towards writing.

NIAS not only offered me a generous doctoral fellowship which gave me time to singularly focus on research, but also provided an intellectually vibrant and liberal atmosphere to conduct research. It is my academic home, where I have learnt many things from its colourful people. Professors and scholars from different schools at NIAS have equipped me with conceptual tool kits to appreciate knowledge from diverse disciplines. The many public lectures and talks, I have attended in its halls, have enriched my education and training. Sarai, Centre for the Study of Developing Societies (CSDS), Delhi funded my fieldwork, and introduced me to scholars who have continuously engaged with this work over the last five years. If NIAS offered the intellectual variety, Sarai introduced me to my own kind. Centre for Contemporary Studies, IISc was another institutional space which exposed me to some brilliant ideas. Centre for Internet and Society (CIS), Bangalore made me understand the policy dimensions of my own research work. I am thankful to Manipal Academy of Higher Education (MAHE) for permitting this research as part of the PhD programme.

I thank Directors of NIAS, Prof. V.S. Ramamurthy, Prof. Baldev Raj, and Dr. Shailesh Nayak for supporting this research. The Academic Heads at NIAS—Dr. Shivali Tukdeo, Dr. Gopi Rethinaraj, and Prof. Sundar Sarukkai—were always encouraging and supportive of my work. Sandhya, PhD Coordinator at NIAS, has reduced my burden with regard to bureaucratic paper work. Without her efficient help, timely reminders, and prompt mails I could not have managed it all effectively. She always gave time, and patiently responded to my queries at odd times. I am also grateful for her support during student events such as colloquia, presentations, and talks. Mr. Aithal has given administrative support whenever needed. I am grateful to him for his help throughout my PhD programme. Mr. Aithal and Mr. Devaraju have accommodated me at NIAS hostel, whenever I stayed at NIAS. Shashi, Guru, Ramki, and Ramesh were of great help almost every day for all technical needs.

People at NIAS library make it the most hospitable space for work and research. Librarian Hamsa is always helpful in locating resources that are difficult to find. She went out of her way to get me the resources I could not find anywhere. I have shared many warm moments over food with Vijayalakshmi whenever I worked in library. Bhaskar has never turned down a request for help. NIAS library is the place where I wrote most of this thesis. It is a place that will remain close to my heart.

NIAS gave me many like-minded friends, whose company brightened up my life. I remember each one of them with love and gratitude. Living away from home, friends are my support system. I thank Maithreyi for the uncomfortable truths that I need to hear from time to time; Naresh for precious life lessons; Priya for her dependability in my most vulnerable moments; Savitha, Krupa, Keya, and Anu for good company, help, and sincere exchange of ideas and feelings; Rolla, Soundarya, Kishor, Shubo, Smriti, Madhuri, and Leya for conversations, ideas, and contacts. I am grateful to Shrikanth and Sarjoo for being pillars of strength and support that I lean on; Ketaki, Jananie, and Vani for all soulful conversations; Gajanan, Madhu, and Deepa for the good food that keeps me going. A special thanks to Shrikanth, Savitha, Priya, Krupa, and my sister Nagashree for their help in proof reading this document. I also thank Nimisha and Soundarya for making paper work easy for me.

This research would not have been possible without all those anonymous informants who shared what they knew with me, when they had no benefit from it, even when it put them and their livelihoods at risk sometimes. I am deeply grateful to each one of them. I have also gained a lot by interacting with colleagues, scholars, and professors I met at various conferences and workshops over the last six years. Their questions, critical comments, and feedback have helped me immensely in the articulation of many ideas in this thesis. I thank all those people whose names I have not mentioned here, but whose support and help were crucial to carry out this research.

My parents have never imposed anything on me; have given me freedom to choose the path I want in life; and have supported me the best they can in all my choices. I am grateful to both of them. I look forward to my sister's company every single time I am home. Her cheerfulness and laughter make my life brighter. I am thankful to all those wonderful family moments.

I owe a lot to my teachers. I started by thanking my advisor, who shaped me into a researcher in the last six years, and I end by dedicating this thesis to Chingirigowda thatha, my teacher and guide in childhood, who awakened in me the spirit of inquiry and learning.

#### INTRODUCTION

It was a sultry July afternoon in 2008. I was on a passenger train to Tumkur from Bangalore. A good thing about passenger trains is that one never gets bored and there is so much for the senses to absorb. A *churmuri*<sup>1</sup> vendor went around the compartment and then sat in front of my seat. He could not get into the next compartment till the train reached next station. He had to sit and wait. I had been seeing this vendor for quite a few years on my trips between Bangalore and Tumkur, but I noticed something interesting on that particular trip – he took out a new mobile phone and started playing a song. Usually he would stare out of the window or begin chatting with a passenger. But that day, what he did was unusual. Soon he was joined by his friend, a fellow vendor, who sells roasted groundnuts on the train, and they started discussing the Kannada film songs they had on their phones. It soon became very common to hear such conversations on the train, so common that now my trips home to Tumkur are never without being serenaded by some Kannada romantic song or a video clip.

This image of the churmuri vendor and his mobile phone symbolizes the digital revolution in India, as much as the image of a farmer speaking over a mobile phone stood for the communication revolution a few years ago. In India, the changes brought about by mobile phones have been unprecedented. Most people, regardless of their economic status, seem to have access to mobile phones now. This device has become as basic as food and shelter, proving to be indispensable in our lives. Arguably, the mobile phone has become the most important social good of the contemporary moment, yet we do not have accurate statistics or studies to capture the transformations brought about by this phenomenon.

The Telecom Regulatory Authority of India (TRAI) has traced the increasing tele-density over the years, signalling the communication revolution in India. Periodical surveys

<sup>&</sup>lt;sup>1</sup> A local snack made out of puffed rice and salad vegetables.

conducted by TRAI paint an accurate picture of geographical spread and rural distribution of phone subscribers in India. According to the most recent decadal profile (2012), the total number of telephone subscribers in India stood at 943.49 million in February 2012 as against a mere 28.53 million in April 2000. Out of 943.49 million users, 911.17 million users were wireless subscribers, and nearly 431.37 million were wireless data subscribers (TRAI 2012: 14). These statistics indicate the widespread diffusion of mobile phones and the extent of mobile Internet penetration in India. However, they do not tell us anything about the everyday uses of mobile phones. These data are based on the number of active subscriptions – a parameter that does not measure the actual extent of mobile phone use or the breadth of affordances that such phones offer. For instance, a lower middle-class household of four may own only one mobile phone, which is used by all the family members. The use of a single mobile phone by an adolescent daughter or homemaker whose names are not registered as subscribers cannot be captured by such statistics. Nevertheless, TRAI data provide some indication of the scale of transformation witnessed in Indian telecommunications since the 2000s. As a new technology, mobile phones have penetrated the social fabric of India in largely unmapped and disruptive ways.

Across the world, mobile phones have arguably been one of the most significant and paradigm-changing media and technological objects of the contemporary moment. The rate of diffusion and adoption of mobile phones has made them almost universal. Human experience mediated through mobile phones is a varied and fast-evolving domain, with often far-reaching consequences, and hence deserves detailed study and examination. The term 'phone' does not do justice to the technological complex that is constituted by mobile phones and mobile phone networks. They are an amalgamation of digital and telecommunication technologies with ever-expanding affordances. The muchawaited 'Internet of Things' (IoT) is already here. Objects have entered the digital universe and will soon be as interconnected as humans. The handy object, the mobile phone, is the central locus for most of these advances.

\_

<sup>&</sup>lt;sup>2</sup> Internet of Things is the next generation Internet in which everyday objects will be as connected as human beings and will be capable of sending requests and interacting with each other on the web.

In this context, Android as an open source and free software has enabled an ideal environment for creative innovation. In addition, parallel changes in data storage technologies have not only created space for more applications and affordances, but have also revolutionized the entertainment industry. Micro- and mini-SD cards (commonly called memory cards) make it possible to write and rewrite data several times without having to repeatedly buy media for data storage. These small objects are among the most important innovations in this domain. Further, 'sharing' technologies are now available to everyone, allowing a certain level of free movement and circulation of digital media content. Whether such a development has resulted in more primary creative production (which scholars usually associate with digital media technologies), or has only facilitated secondary circulation of pop-culture, needs to be examined. However, the implications of all these developments are enormous, especially for media and entertainment markets.

In India alone, the telecom sector has received 'on average 8.2 per cent of total inward Foreign Direct Investment (FDI) between 2000-01 and 2010-11, and most of the FDI has gone to the cellular mobile segment' (TRAI 2012: 13). The market for cellular phones in India is not monopolized by a single manufacturer like Nokia anymore; there are plenty of options to suit the needs of consumers from different social classes. The nonbranded varieties and cheap smart phones exist alongside the branded ones. Chinese manufacturers have inundated the market with all kinds of phones, making smart phones available from 2000 Rupees onwards. In addition, feature phones have not completely disappeared from the Indian market. Those who do not have the requisite skills to navigate a smart phone are still using simple interface feature phones which give them options for more than just making and answering calls. The dispersed mobile phone market gives people access to this technology even in remote corners of the country. Every street in urban areas and every village today has a mobile phone shop, which has become as common as provision stores in our everyday lives. Such shops serve as a onestop solution for buying, repairing and servicing devices, for accessing mobile phone subscriptions and recharges, and for purchasing accessories and peripheral technologies. One can also buy entertainment and media goods in some mobile phone shops. The advent of mobile devises has thus instituted new forms of media practices and sociality, mediating how we experience our work and leisure time, and configuring economies in new ways. This thesis is an attempt to map and document new forms of sociality and accumulation that have been enabled by mobile phones.

#### Parallel or mainstream digital?

Broadband Internet penetration in India stands at 14 per cent according to the 2012 TRAI decadal profile, indicating that the growth of Internet penetration through broadband has not been as rapid as mobile Internet. One of the priorities of the telecommunication industry in India has been to increase this number and make Internet popular among masses, but such efforts have not produced the desired results. The majority of Indians have experienced the Internet mainly through mobile phone interface and data packs. Keeping in mind these developments, this study contrasts two kinds of digital subjects – (1) tech-savvy middle-class and elite users who have multiple avenues of access to the Internet and were the first to adopt digital technologies; and (2) 'marginal users' who arrived later on the digital scene and have not yet fully exhausted the potential of digital technologies due to socio-economic constraints. With the sheer numbers of these new users, the market has been reshaped to cater to their needs. One might argue that the universe of consumers described in the following pages is in fact the new mainstream, as the numbers of middle class and elite tech-savvy users is very small compared to the ever-expanding base of mobile phone users from less affluent social classes.

This study is situated in Bangalore,<sup>3</sup> which has long had a diverse and heterogeneous media and cinematic culture. While the focus of most social science studies of Bangalore has been on the information technology industries and changing urban life, in this thesis I document other dimensions of information and digital technologies within urban culture. What is happening in Bangalore may indeed be found in other metro cities in India as well, but I will be cautious in extending my claims based on the limited data I have collected in Bangalore to other sites.

#### Structure of the thesis

The thesis is divided into five main chapters, bracketed by this Introduction and a Conclusion. Chapter 1 provides the background to my research questions, outlines the

<sup>&</sup>lt;sup>3</sup> In this thesis I retain 'Bangalore' rather than using the city's new name 'Bengaluru', because this was the term used by most of my informants when the fieldwork was carried out.

conceptualization of the project, describes the methods used and how the research was carried out, and traces how the questions and methods changed as the project developed. I provide a brief overview of how I am using the term 'marginality', drawing on the literature on digital media, to highlight the imbalance in our understanding of the initial uses and early adopters of technology (who are often referred to as 'power users' in development discourse) in contrast to users who arrived late on the digital horizon. In this chapter, I discuss the limitations of the Information and Communication Technologies for Development (ICT4D) discourse, which usually adopts a normative framework and tends to overlook the actual practices of users on the ground. Justifying the study, I argue that we need to theorize and study technological marginality in terms of alternative media use and practice. I explain why I have taken a syncretic and eclectic methodological approach, using different methods to address social and technical components of the study as required. Instead of subscribing to a single theoretical framework, I argue for theorizing 'from the ground'.

The second chapter draws on several bodies of literature to lay out the theoretical framework for the arguments presented in the thesis. It discusses relevant debates and questions that inform the questions addressed in this research, especially the literature on 'digital economy', 'information economy', or 'digital capitalism'. Studies on variants of capitalism mainly focus on production and consumption. But with the advent of digital and communication infrastructure, capital searches for new opportunities for value generation by reinventing distribution strategies to reach consumers in different contexts, and to expand the consumer base by creating new avenues to bring new users into the markets. Drawing insights from the literature on post-industrial economies of the west, I show that the innovations that drive digital capitalism seem to be taking place mainly in the domain of distribution rather than production. Scanning the broader literature on contemporary capitalism, I observe that distribution has received less scholarly attention as an economic process, compared to production and consumption. I argue that this thematic focus can help make sense of the economy of multimedia consumption via mobile phones in India. I also draw upon theoretical and methodological insights from economic anthropology and allied disciplines to theorize the nature of commodities and the production of value through circulation. To make sense of the technical aspects of these developments, I rely on newer descriptivist methods in science and technology studies and media studies that emphasize materiality and medium specificity.

Chapter 3 draws on data collected from interviews and interactions with mobile phone users in Bangalore to describe their life-worlds and the effects of the arrival of mobile phones into their social milieu. As users interacting with digital technology for the first time through mobile phones, their practices are oriented to the needs created by their specific social and work situations. The chapter highlights the intersections between the spread of mobile phones across most social classes and the emergence of new forms of labour and work environments in the city. I argue that these developments need to be situated within broader changes in entertainment and leisure spaces and consumption practices.

The fourth chapter discusses the micro-economy that has grown around mobile phones, driven especially by mobile phone shops that cater to the needs of non-elite users. The chapter draws on interviews with users, owners and employees of mobile phone shops, and vendors in media markets of Bangalore. I discuss the modalities of offline exchange and distribution of content that are facilitated by these shops. Based on ethnographic observations and interviews in the market, the chapter details the typical mode of distribution through micro- and mini-SD cards and thumb drives, the ways in which transactions take place, and the 'profiling' of customers by shopkeepers. The chapter analyses these findings by drawing on studies of electronic cultures and urban media markets, responding particularly to the debate on media 'piracy'. It shows that mobile phone shops have become important spaces for the dissemination of technological knowledge, and for dialogic learning about the technology, which in turn has a larger significance for the entertainment and media content markets.

Chapter 5 delves more deeply into the domain of distribution and circulation, to address questions that emerged from field research, which pointed to the need to study distribution as a process that is witnessing radical changes with the onset of digital economy. Drawing on interviews with owners and employees of distribution companies that have pioneered new forms of content distribution in India, I describe the digital and communication infrastructure which has transformed the entertainment industry. The main question addressed in this chapter is: how do older media forms interact with the new digital medium when they are integrated into web infrastructures? The first section traces the lifecycle of 'content' as a commodity from production to consumption,

describing several 'windows' of exhibition and distribution. The discussion shows how regional media economies have collaborated and grown with, the global digital media infrastructure. It suggests that a new model of capitalist accumulation has emerged within digital content industry that is set to capitalize on the very process of consumption.

In the Conclusion, I provide a brief summary of the main findings and insights of the thesis and relate them to the theoretical framework and the broader questions that emerge from the literature. I highlight both the scope and limitations of the research and indicate future possibilities for extending this study. I also respond briefly to several major debates and discussions that have informed this work.

#### Chapter 1

#### **BACKGROUND AND METHODOLOGY**

In this chapter I describe the background that frames the research problem; outline the objectives of the research project and the key research questions (both operational and theoretical); describe the process and trajectory of the field research, including the strategy and methods; and provide a brief overview of the methodological and theoretical orientation. Finally, I discuss some of the methodological and theoretical problems I faced in conceptualizing and carrying out this work.

#### Phone studies

Mobile phones have become an important and ubiquitous accessory of our everyday lives, a common and indispensable part of our paraphernalia across social contexts. Some commonly recognisable human and social behaviour associated with phones have turned into almost 'universal' media practices.

With the increasing importance of mobile phones across the world, a new area of study known as 'phone studies' is emerging. The major thrust of phone studies initially was on their use for communication, but recently focus has shifted to their other utilitarian affordances. With technological advances and media convergence, mobile phones have been transformed into a multi-functional digital technology. Device manufacturers name and sell mobile phones as 'handheld devices' that are capable of doing much more than receiving and making calls. Competition in the mobile phone market revolves around the extra features packaged with the device. Thus, it is important for researchers to widen the scope of phone studies by including the entire range of their functionalities, not just the aspect of communication. The literature discussed in the following sections indicates the widening scope of phone studies, as scholars explore not just various affordances of phones but also their social and symbolic significance. Below I present a brief overview of studies that focus on phones as a communication technology, and then move on to

consider other studies that view them not just in terms of their use but also in relation to the meanings ascribed to phones by various actors (including the state).

Agar (2013) offers a comprehensive global history of cellular technology and its growth since World War II, from radio telephony to the contemporary cell phone (as we call it now), since the mid-1980s. Although he traces the transformation of cellular phone technology from its military beginnings to its commercial adoption and popularization in 1980s and 1990s, Agar does not discuss the incorporation of other kinds of technologies into cell phones, as he maintains a singular focus on the aspect of communication.

An earlier work, *Mobile Communication and Society* (Castells *et al.* 2007), documents the changes in modes of communication following the rise and spread of mobile phones and other wireless digital communication technologies. By taking a cross-cultural and global approach to wireless communication, the studies in the volume present empirically rich local and contextual accounts of wireless communication by closely examining varied users and uses of the technology across the world. In the introduction to the volume, Castells revisits his earlier concept of 'network society', noting that contemporary society has now become 'mobile network society' with the diffusion of digital wireless technology. Mobile network society he adds, is 'an enhancement of the social structure conceptualized as network society by new wireless communication technologies' (Castells 2007: 6). Similarly, Goggin (2008) considers mobile phones and other telecommunication technologies to be symbolic of digital modernity.

Other studies examine mobile phones in relation to questions of development, modernity (Donner 2008; Mechael 2008; Turkle 2008), and inclusion (Portus 2008). More recently, scholars have explored changing gender relations due to the widespread embrace of cell phones (Jeffrey and Doron 2013). An emerging literature has extensively documented political movements and youth subcultures enabled by, or constructed around, mobile phones (Gergen 2008; Ibahrine 2008; Rheingold 2008).

In addition, scholars have written about the adoption of technologies in our everyday lives, their domestication, and the meanings people ascribe to technologies. Katz (2003), for instance, considers mobile phones as one of those 'machines that become us'. Inquiring into the representative value of phones, he mentions that mobile phones

complement a person's being. Fortunati (2002) explores the relationship of phones to the human body and mines the symbolic and social meanings of mobile phones. Fortunati *et al.* (2003) draw similarities between mobile phones and money to demonstrate the representational significance of mobile phones. Like money, the phone comes to acquire an aesthetic value that makes it an artefact worth collecting and keeping for its own sake. In a similar vein, several studies regard mobile phones not just as technological objects but as social objects which define self and identity, particularly among the youth (Lobet-Maris 2003; Srivastava 2005). Interrogating fashion and the personalization of technologies, Katz and Sugiyama (2005) study the symbolic meanings people attribute to phones, particularly telecommunication technologies. Beginning with telephones as status symbols, they trace the evolution of symbolic meanings attached to telecommunication technologies, including mobile phones. Studies in this vein explore what technologies stand for and focus less on what they do.

Scholars have also attended to other utilitarian affordances of mobile phones. Katz (2003) understands the mobile phone as a device that enhances human prosthetic capabilities. Batson-Savage (2008) calls attention to popular utilitarian affordances of mobile phones such as torch, watch, and others. Ciaramitaro (2012) explores the applications (apps) offered on mobile phones that constantly expand their capabilities. Of late, attention has shifted to the new possibilities opened up by mobile phones that have computer-like and multimedia capabilities.

Mobile phones are also seen as the one of the newest forms of computer mediated communication for the range of functionalities they offer (Lim and Goggin 2014). Goggin and Torres (2014), discussing mobile phone cameras with respect to 'sousveillance' (the surveillance from below), point to political activism in mediated geographies such as Mexico. They argue that mobile phones contribute to a new form of digital literacy that transforms into a kind of activism through active consumption, circulation, and production of content that shapes political opinion among the public. Goggin (2006, 2011), writing on convergence of cellular communication with other media, discusses photography, music, multimedia after SMS, television, and the Internet. He argues that the integration of phones into other media creates new cultural economies and practices, opening up new possibilities for research. He argues that the mobile phone should be treated as a 'new medium', and views mobile phone networks

and the convergence of other media thereof as a global media system that transcends specific local contexts and cultural trajectories. Mobile music (O'Hara and Brown 2006) is another most researched aspect of mobile phones continuing in line with Walkman and iPods. All these trends are indicative of the expanded range of studies of mobile phones, which are now viewed as digital technologies that converge with other media technologies.

#### Digitization, media convergence, and mobile phones

Since the 2000s, we have witnessed a profound transition in the media sphere, as digitization has eroded conventional distinctions between various types of media in the analog world (such as print, radio, television). Discussions on media convergence have critically examined the erasure of differences between old and new media due to digitization. Sound, image, text, moving pictures, and other media forms have all been digitized. Scholars of digital media refer to these varied media forms as 'multimedia content', or more generally as 'content', highlighting this convergence and interplay of what were earlier distinct kinds of media. In this context, scholars have begun to examine the co-evolution of different media forms. In this strand of thought, all media forms are perceived to be adapting to, and merging with, the new digital media as they transition from the analog phase.

This development has enabled users to access and consume multiple kinds of media content through a single device, and to experience the same content on multiple devices. This development is referred to as 'media convergence'. The blurring of the differences between media forms has had profound effects on how media content is produced, distributed, and consumed. For media scholars, this dramatic shift calls for a rethinking of the notion of medium specificity. Convergence has been understood differently by various scholars as a technological, socio-economic, and cultural shift within the overall media matrix. In the following section I present a brief summary of the key discussions on media convergence.

Flew (2008) understands convergence mainly as a technological shift in which information technology (IT), communication networks, and digitized content come together. Fortunati (2005) views it as a two-dimensional change involving the processes

of 'internetization and mediatization'. While old media were being internetized (analog media forms were unified into digital form and went on the web), the Internet was being mediatized (made into a media form in itself). Nightingale and Dwyer (2006) describe the transition into convergence as a phase in which old media industries (newspaper, radio, and television companies) were developing strategies to extend their offline activities to 'online enhancements', significantly altering the ways in which they delivered content.

Jenkins (2006) and Dwyer (2010), on the other hand, argue that convergence is not just a technological shift. For Jenkins (2006), convergence represents a cultural shift that encourages media consumers to search for new kinds of information and establishes connections among dispersed media content. Convergence alters the relationship between existing technologies, industries, markets, genres, and audiences. It paves the way for the emergence of a 'participatory culture' (in contrast to 'passive media spectatorship'), one that transforms our relationship to media content into a collective process. Jenkins (2006) also flags a shift in the convergence debate -from an argument about new media replacing old to an understanding of the complex and layered interaction between old and new media. The old idea of convergence, in which all devices were envisioned as converging into a single device, has been superseded by notions of 'hardware diverging' and 'content converging', as different devices emerge to cater to the needs of specific users in situated contexts. Consumers of media content today are compelled to buy a range of specialized devices, leading to a proliferation of media gadgets in our everyday lives. Smart mobile phones are key elements in this range and spectrum because of their affordability, portability, and multi-functionality. With multimedia capabilities, they are a key example of media convergence - marked by hardware divergence and content convergence. The technological complexity of mobile phones makes them potential instruments for development.

#### Mobile phones and the ICT4D debate

Mobile phones have been promoted both by the state and the corporate sector as potential instruments for development. Mobile phones are studied and discussed as developmental tools mainly at four levels: as communication technologies, as information technologies, as a system for exchange and transfer of money, and as a distinct media economy that creates business opportunities around hardware, software,

and content. As communication, information, and developmental technologies, they are believed to have the potential to improve livelihoods and foster enterprise, and to enable and empower economically disadvantaged people to expand their social ties and capitalize on them (Horst and Miller 2005; Waverman *et al.* 2005). Such celebratory ideas have been elaborated within the ICT4D (Information and Communication Technology for Development) discourse, for instance, a 2005 UNCTAD (United Nations Conference on Trade and Development) report highlights the enthusiastic embrace of mobile telephony across the globe.

Several studies, especially in Africa and Asia (Donner and Escobari 2010), have addressed the question of ICTs and development. Researchers have documented the positive effects of mobile phones for the fisher folk in India (Abraham 2007; Jensen 2007), or how they have revolutionized financial services and the remittance economy in African nations through M-Pesa (Morawczynski 2009; Morawczynski and Pickens 2009). Similarly, mobile phones have been instrumental in promoting micro-enterprises in African countries (Donner 2006; Aker 2008). These studies are much cited as well as critiqued for their belief in 'technosalvation' (Steyn 2016), and for their exaggeration of the role played by mobile phones in promoting growth and development.

Several anthropological studies have similarly explored the changing nature of social communication since the advent of mobile phones, examining their impact not just on the livelihood opportunities of people but also in addressing immediate social problems. For example, Horst and Miller (2005) note the significance of mobile phones among low income Jamaicans for poverty alleviation and bridging the chasm between the rich and the poor. They argue that the possibilities for connection and communication offered by cell phones provide tangible material benefits, both personally and professionally.<sup>4</sup> Although a few studies (Sreekumar 2011; Srinivasan and Burrell 2015) have qualified such reductionist accounts by providing the missing social and political nuances, most of

\_

<sup>&</sup>lt;sup>4</sup> Horst and Miller (2005) also observe the emergence of an informal economy around mobile phones, such as exchange of credit currency and establishment of various kinds of businesses around mobile technology. Some of the insights they draw from the Jamaican example have resonances with the findings of this research.

the literature has ignored uses of mobile phones that do not contribute directly to economic growth or development.

Other studies, conceptualized in a similar framework, focus solely on inequalities induced by access to technology - especially the much-discussed issue of the 'digital divide'. Mobile phones are widely proclaimed as a solution to the problem of the 'digital divide' given the rate and the breadth of their diffusion across global population, particularly among marginalized groups in the developing world (Castells et al. 2007; Jensen 2007; Aker 2008). Scholars have argued that mobile phones can become the 'digital provide' the ultimate solution to bridge the technological divide. Jeffrey and Versteeg (2007) also propose that mobile telephony is a viable option for bridging the digital divide, especially in the developing world. They document some new and interesting uses of the mobile phones and provide a classification of users based on the mode of use: users who are subscribers but may not own the device, users who share both the phone and subscription with other household members, and finally users who own both the device and subscription. In a similar vein, Burrell (2010) mentions 'shared access' of mobile phones in rural Uganda, where specific groups overcome the financial, social, and other constraints that limit their technological access by sharing a single mobile phone device. This observation is also supported by the present study, where I demonstrate the presence of mobile phones in the lives of people regardless of personal ownership of the device. While these studies document the diverse and unconventional ways in which people have gained access to digital technologies, especially mobile phones, most take a normative or idealistic approach and do not sufficiently examine the actual and predominant uses of such technologies on the ground.

Even as mobile phones are being celebrated as an appropriate technology for digital emancipation and for the promotion of 'development', studies evaluating the actual effectiveness of ICT4D projects have reported other kinds of usage of mobile phones, mostly creative and leisure uses. Several scholars suggest that ICTs should be conceptualized primarily as social artefacts and only later as tools for development (Rangaswamy and Cutrell 2012; Rangaswamy and Arora 2015). Arora and Rangaswamy (2013), documenting 'leisure oriented behaviour' and other forms of engagement with new media in the Global South, emphasize the importance of new media leisure practices for emerging economies. They challenge the received dichotomy of developmental and

leisure functions, and argue that other engagements with the media are necessary precursors to attain digital literacy in other domains. The immersive engagement with the medium through leisure activities may subsequently lead to the use of technology for developmental goals even though it appears as if the two ends are mutually contradictory. The skills and literacy acquired in one activity may have potential to translate into the other domain. They add that informal situations of peer and immersive learning by exposure and use are more effective than formal training programmes or classroom lessons in educating people about new technologies, thus critiquing the effectiveness of ICT4D projects in bringing about technological access to the marginalized populations. Critiquing the underlying assumptions of the mainstream literature on ICT4D, Arora (2012) characterizes the tendency to overlook leisure engagements with media as 'leisure divide', in which users in the Global South are viewed only as subjects of ICT4D projects, while those in the developed countries are validated as leisure users. Consequently, studies that document the use of technologies for development goals only mention more popular uses of technology for leisure anecdotally. She argues that it is important to look at the leisure practices of these users because they are no different from the users in the first world.

While it is important to recognize the 'leisure divide' implicit in the ICT4D discourse, as pointed out by these scholars, we must also pay attention to the context within which media consumption for leisure takes place in countries of the Global South such as India and refrain from drawing parallels with leisure as experienced by users of the developed countries. It is also necessary to differentiate the kinds of users (with respect to their social class and background and the breadth of technological access they have) before grouping them all together into one broad category of users (of developing countries). The critique of 'leisure divide' becomes more forceful if it moves beyond the translatability of skills acquired through leisure activities into developmental ends. Instead, it is crucial to recognize that such activities are already imbued with meaning for user groups in their particular social contexts, regardless of their progression into some worthy state-sanctioned developmental goal over the course of time.

Thus, there is a need to document and make sense of the whole range of creative activities and engagements with the mobile phone medium, not just online but also offline. This would provide a more comprehensive range of media practices and offer a

more in-depth understanding of specific media practices, informing us about the presence and spread of particular forms of digital technologies among different social groups. Yet studies that move beyond the 'communication and development' lens to record actual mobile phone usage on ground generally have a limited focus on mobile internet, gaming and downloads. In this thesis, I travel farther and demonstrate the importance of offline media practices, especially among the users who are usually the target groups for ICT4D projects. Although I highlight the social significance of mobile media practices of the kind of users discussed in this thesis, I resist projecting or celebrating them as having emancipatory potential. Instead, I point to the exploitative, economically and technologically limiting conditions under which such user practices are fashioned – which I characterize as digital marginalization. I elaborate more on this aspect in the following chapters.

#### Objectives and research questions

The broad aim of the research carried out for this thesis was to document and understand the media and social practices that have developed around mobile phones in India, particularly those associated with the consumption and circulation of content through active user deployment of digital multimedia technologies in Bangalore. The research for this thesis focused on users with limited economic and technological means, who have experienced the digital for the first time through mobile phones. The objective was to map the networks of consumption and circulation of digital content that have emerged in this context. The project concentrated on studying just one process of multimedia consumption, mapping the social fields and economic practices that have been forged around it.

There are diverse ways in which media content is circulated and consumed in the digital world, spanning both online and offline spheres. These include: (1) formal, authorized modes of distribution of content online by educational institutions, university departments, NGOs, artists, and so on; (2) web and social media platforms such as Facebook, Twitter, YouTube, Blogspot, and Whatsapp that host user-generated-content; (3) informal online repositories and personal archives of resources in various languages that are compiled and maintained by individual users and user communities, such as archive.org, beemp3.org, rasikas.org, 0xdb.org, and karagarga.net; (4) informal online file-

sharing platforms that facilitate peer to peer sharing of content through 'torrents' (The Pirate Bay) and other technologies; and (5) other informal modes of sharing that use data storage and transfer technologies such as SD cards, flash and thumb drives, and protocols (Bluetooth) and mobile packet data to copy and circulate content.

If the first type of circulation has extended the possibilities of dissemination of information, the second kind has been viewed as an exemplar of 'digital economy and capitalism'. The last three types of circulation are often labelled 'piracy'. Among these modes, the peer-to-peer torrent file-sharing phenomenon is the most studied form because of its scale and immediate consequences for the global media and culture industries. However, the focus of this research was on the fifth category (offline, informal modes of sharing), which is of importance particularly in the Indian context. These practices were of interest because they take place primarily outside of the platforms erected in the digital world by corporate actors as well as those created by elite user communities. The technologies that are deployed by users in this mode of sharing are cheaper compared to those needed for online peer to peer file-sharing, signalling the emergence of an entirely new kind of digital user base in India. This development is bound to shape both the choices of state and market in the future.

#### Research questions

The central questions that framed the field research, as conceptualized in the initial proposal, were:

1. How are contemporary practices associated with user deployment of digital multimedia technologies—especially mobile phones—constituting and

\_

<sup>&</sup>lt;sup>5</sup> According to Terranova (2000), 'the term *digital economy* has recently emerged as a way to summarize some of the processes described above. As a term, it seems to describe a formation that intersects on the one hand with the postmodern cultural economy (the media, the university, and the arts) and on the other hand with the information industry (the information and communication complex)' (Terranova 2000: 35). She builds on Barbrook's (1997) concept of digital economy that includes new technologies of computer networkers and a new workforce of 'digital artisans'. Recently, scholars such as Arvidsson and Colleoni (2012) include social media companies such as Facebook, Twitter under the rubric of digital economy.

- **changing** the consumption and circulation of media content in the Indian context?
- 2. What forms of sociality have emerged around these practices, and what are their wider social, cultural, and economic implications?

These broad questions were broken down into a series of sub-questions and specific empirical and operational questions that guided the field research. The first set of questions concerned the specific practices of circulation and consumption that have been induced or facilitated by the spread of mobile phones in India. At the intersection of technological innovations and their particular uses, certain practices have the potential to alter or create new modes of consumption and distribution of content. The major question I pursued here was:

- 1. How are mobile phones enabling users, especially those with limited technological means, to access and interact with content? The operational questions that stemmed from this included:
  - a. What are the specific purposes for which users use mobile phones, such as watching movies, listening to songs? Which are the other portable devices used to consume and circulate content?
  - b. Where do they get the required technical support to consume and circulate cultural goods? From where and how do they learn to manipulate and manoeuvre these technologies?
  - c. Who manufactures these technologies and what is their cost? From which markets do users purchase these technologies?
  - d. How do they use the Internet on their mobile phones? Which telecom services do they subscribe to? How much do they pay as internet charges? What websites do they visit to source content?

The second set of questions addressed the changes that users have effected through new modes of consumption and circulation especially at user end:

- 1. How have these user practices augmented other modes of consumption and circulation of content such as Peer to Peer online file sharing? How do such users get connected to different offline and online networks that circulate content? The operational questions included:
  - a. What has mobility done to the experience of consumption of media content?

- b. What kinds of content are accessed via mobile phones?
- c. How do users source content for their mobile phones? With whom do they share it? Do they upload songs, movies, and so on, online?
- d. Are there differences in the kinds of content and modes of circulation across different social or occupational groups or genders?

These questions guided the research as I mapped the networks and practices in this domain.

The next step was to investigate the social significance of these developments. This third set of questions were asked later in the research and guided the theoretical turn that the thesis took after ten months of fieldwork:

- 1. How have mobile phones changed the social dynamics of access to media content in India?
- 2. What does such access mean to users and user groups of limited technological means? How do users perceive the value of such media content?
- 3. What happens to the value of different kinds of content that travel through user driven networks of circulation (compared to a DVD bought in a media outlet)?
- 4. How do existing institutional structures of property and trade shape these userdriven practices? How have commercial and legal institutions governing the production and circulation of media content responded to these emerging practices?

#### Research methodology

The research methodology used in this study was primarily qualitative and ethnographic. As the objective of the study was not amenable to survey-type or quantitative research, the subjects and sites were selected not through a 'sampling' approach but by following leads gathered during the preliminary phase of research. Consistent with Latour's (2005) actor-network theory, in which one enters the circuit of objects and people 'in the middle of things' ('in *medias res*') in an inter-connected world and follows their connections and movement in order to trace and make sense of the social, the initial choice of subjects and sites constituted a strategic entry point into the field. In line with the research objectives, the aim of this methodological approach was to trace the networks of users and technologies in their acts of consuming and sharing media content, rather than to

satisfy the standards of scale, representativeness, and generalizability that govern positivist and quantitative research.

#### Theoretical orientation

Throughout the research and writing process, I have resisted the impulse to adopt a single theoretical and analytical framework to analyse the findings. Instead, I have borrowed concepts and theoretical approaches eclectically, but selectively, from sociology, economic anthropology, media history, science and technology studies (STS), and other areas of scholarship that I found relevant to understand the findings of this research. I discuss the concepts I employ in the relevant chapters to follow. But the larger theoretical orientation of the thesis is inspired by grounded theory.

Grounded theory is more of a methodology than a theory. Glaser and Strauss (1967), the first proponents of grounded theory, claim that the primary aim of research is to generate theory and not just verify or test existing theories. As an orientation, grounded theory advocates loyalty to the field or subject under study than to some predetermined theoretical framework. Accordingly, the process of research is flexible as the researcher lets the field guide her despite having an initial plan. The version of grounded theory propounded by Glaser and Strauss underwent several revisions and organically evolved as more researchers and students adopted it. Strauss and Corbin (1990) fashioned it as a glossary or a manual that provides a tool kit of methods of description and analysis constituting grounded theory. Later, several scholars critiqued the version of grounded theory put forth by Glaser and Strauss and introduced flexibility into grounded theory by introducing the social constructionist variant of it. Charmaz's (2002) revision accommodated relativistic, processual, and positional views of research.<sup>6</sup> More recently, Thornberg (2012) distinguished between Glaserian, Straussian, and constructivist variants of grounded theory and proposed informed grounded theory that stresses on the attitude of 'theoretical agnosticism' with respect to interpretation of data.

\_

<sup>&</sup>lt;sup>6</sup> Mills *et al.* (2006) outline the lineage of several versions of grounded theory, highlighting key debates and its adoption in several areas of research.

<sup>&</sup>lt;sup>7</sup> Thornberg interprets 'theoretical agnosticism' as cultivating a critical and a sceptical attitude toward all theories and their power to fully explain any empirical data set. All theory thus

In this thesis I subscribe to the notion of theory and its relation to the empirical data as proposed by constructivist grounded theory. Grounded theory provided me with an apparatus to develop an open, critical and eclectic relationship to extant theoretical frameworks. I use the research data primarily as a tool for engagement with specific theories, rather than exhausting the interpretative possibilities of data to verify or explain a particular theory. Thus, I do not use any single theoretical and analytical framework to present my insights. This thesis adheres to 'theoretical pluralism' (Thornberg 2012) as generally practised in grounded theory.

#### Conceptualizing and mapping the field

Given the fluidity and complexity of the emerging domain of cultural practice that I chose to study, and the paucity of existing studies to guide the research, I could not start with an already mapped out or clearly defined field. The 'field' would emerge depending on the specific users I chose to follow during the course of research.

Following several critiques of the conventional anthropological understanding of 'field' as a discrete territory spatially removed from the location of the anthropologist (Gupta and Ferguson 1997), the notion of field in anthropology has been reconceptualized to better accommodate studies of contemporary social processes and complex societies. Ethnography as a method of doing fieldwork has also been modified for the study of immediate and everyday social processes in which the researcher is already embedded. As Marcus and Fisher (1986) note, in writing ethnographies of the contemporary world a clear construction of an 'Other' as an object of study is nearly impossible, as is the assumption of a spatially and temporally isolated socio-cultural domain that is readily available for observation. Moreover, one's subjects may be part of the same 'cosmopolitan consciousness' shared by the ethnographer. In this context:

[e]thnography moves from its conventional single site location, contextualized by macro-constructions of a larger social order, such as the capitalist world system, to multiple sites of observation and

becomes, in Thornberg's view, 'provisional' and 'disputable' and is open to modification in its encounter with data.

participation that cross cut dichotomies such as the 'local' and the 'global', 'the life world' and 'the system'. Resulting ethnographies, therefore, are both in and out of the world system' (Marcus 1995: 95).

A multi-sited ethnography may follow the circulation of people or commodities, or of diverse objects such as metaphors or representations (Trouillot 2001). Building on such a broadened definition of field and well formulated guidelines for multi-sited ethnography, together with the grounded theory approach, my research encompassed both online media practices as well as flows between offline and online domains – adding another level of complexity to the methodological problem of defining the field.

Existing anthropological studies of digital media and Internet practices provided some pointers for chalking out a research plan. As noted above, several studies have followed the online activities of predefined cultural, linguistic or national communities (Jordan 2006; Miller and Slater 2006). Others viewed online MUDs (Multi User Domains) as communities, thereby reimagining the idea of community itself (Rheingold 1993; Bromberg 1996; Wellman and Gulia 1997). Studies that followed mapped the idea of community onto social media groups, online/virtual communities, or identity-based categories such as queer people and hacker groups (Wilson and Peterson 2002; Boyd 2008; Coleman 2009). These strategies, however, were less relevant to my research, a study of emerging social practices not linked to already existing or concrete social formations, either online or offline. Moreover, my project aimed to map and define new media practices and the forms of sociality that emerge from them, without a priori categorizing these practices as 'offline' or 'online'. In order to address some of these challenges, I borrowed from a wide repertoire of approaches and methods drawn from conventional social research as well as from more recent innovative researchers working on similar domains.

In particular, I have benefitted from the work of Latour (2005), who has challenged the *a priori* category of the 'social' that is foundational in sociology, proposing instead actornetwork theory (ANT), which constructs the domain of the social from empirical experience by following actors and their actions and tracing the social networks that are formed by them. Taking my cue from Latour, I tracked users, their practices, and the

circulation of media objects in order to map and make sense of the social trails they leave behind, and the new networks they construct as they navigate domains and paths of circulation (both 'online' and 'offline'). I also drew on Burawoy's (2009) 'extended case method', in which the researcher analyses social reality by 'extending' out from the 'field' to connect micro-level, local and everyday processes to larger macro-level processes and structures – a model that helps to situate communities or practices within their socio-historical contexts. This method was particularly useful as it involved a process of 'extending out' from the immediate context and the case under study and situating it within larger processes across space and time.

By building on these various methodological approaches, I gradually developed my own field techniques for tracing networks and circulating objects within the larger field site of Bangalore, while connecting them to phenomena that transcend the city. Thus, the field that I marked out for this study was inspired more by the activities and actors that constitute the phenomenon I wanted to study, rather than by location. My research questions framed the demarcation of the 'field'.

Bangalore' as a choice of site for the study should not be read as geo-political territory, but as a spatial and cultural setting where media practices unfolds. Although the study could have been carried out in any other metropolitan city of India where it would likely have produced similar results, Bangalore was the best choice for research because of my familiarity with the urban landscape, Kannada language and media content. Moreover, understanding technical components such as media infrastructure and economy required me to transcend any particular geographical setting, making fieldwork both unconventional and challenging at all levels. The field constantly changed and got redefined by questions I was pursuing at different phases of research. I elaborate on the phases of research in the following sections.

The broad central question remained the same throughout the fieldwork phase. The focus of the research became sharper as I proceeded with the fieldwork, and finally it narrowed down to what I have termed digitally marginalized users and their practices, specifically in the digital offline domain. This choice was completely shaped by the field as I got immersed in it and began to understand these practices better. Thus, the project developed in a very organic and inductive manner, following the leads and questions that

emerged in the field. My field experiences illustrated the gaps in the literature I had identified while writing the proposal. Further, my discussions about the project with various scholars working on similar topics helped steer the project in specific ways. I realized that the domain of digital offline and the digital experience there, which was very conspicuous in the field, had hardly been documented or studied in the literature. I could glean some information about such informal practices from market research reported in business publications, but it was not comprehensive. Many think tanks and NGOs have produced knowledge on informal media use, but they approach the research with the specific aim of empowering users or broadening access to these technologies – as discussed above. Missing in both accounts was a clear understanding of the ground reality, as they ignored the presence of technical knowledge which is not of importance to state or market. In addition, the economy that sustains such technological deployment could not be directly studied, given its invisibility for various socio-political reasons discussed below. All these factors gave me the confidence that the research questions I had formulated were crucial, and that my close knowledge of the everyday life and the local situation in Bangalore would enable me to successfully carry out the research.

At the start of the fieldwork, I realized that there are limits to immersive fieldwork in this area due to highly personal and private nature of mobile phone interaction and the extralegality of informal commercial activities in relation to media content. Like many other domains of contemporary life, the field did not fully lend itself to classic ethnographic methods such as participant observation. Although the phenomenon I was observing was all around me and I did not have any problems of access, the interaction between people and a personalized device like mobile phone could not be observed like any ordinary social interaction. As I learned more about the field, I realized that a seemingly simple interaction with mobile phones and an apparently passive consumption process was facilitated and sustained by an invisible economy and complex social interactions and exchanges, spanning both digital online and offline domains and involving many players. The user practices of consumption and circulation of content were embedded in larger social processes and the social life. Conversely, the 'social' I wanted to observe was mediated through a digital technology, which was not evident and explicit unless I asked my informants pointed questions about their practices.

I entered the field through known users of these technologies who work or live in localities that were accessible to me - not only for the sake of convenience, but also because empirical research on digital media practices in India is an emerging field of study and I felt that collecting data from anywhere would be a good start. The pilot study I carried out in the first few months helped to generate a rough map of the media content consumption and circulation ecosystem in Bangalore, from which I selected particular user groups and practices for closer study. The key criterion for selecting subjects for the study was that they should have accessed digital media for the first time via mobile phones. As a large number of people fall into this category, I had to devise a strategy to narrow the focus. I chose users who were visible in public places and started studying them in those spaces. For example, I started with security guards, whose media consumption practices via mobile phones were conspicuous. Security guards were chosen as research subjects because the nature of work spaces they inhabit make it difficult for them to access media content through other multimedia devices. Later, I noticed similar practices among bus drivers, taxi and auto rickshaw drivers, vegetable vendors and other kinds of workers whose work provides them with the time and autonomy to engage with phones. These choices, in turn, led me to investigate the connection between work and media consumption practices that became central to the project. I did not set out to identify certain kinds of users based on their work, but instead was guided by one criterion – using mobile phones as a digital technology for the first time.

Thus, the user groups identified for study in the initial phase were urban informal sector workers such as auto rickshaw drivers, street vendors and security guards – categories of workers who seemed to use these technologies extensively. Simple modes of observation such as 'hanging out' in places where I believed such practices could be observed only revealed surface details about the sociality I was trying to understand. Detailed and tactful questions directed at users gave better results. As the domain I was studying is mostly extra-legal, any information that my informants provided was sensitive (with a potential risk to their livelihoods if it was not handled cautiously), and I took precautions not to violate the research ethics protocol for the project.

During the initial phase, direct questions to users gave me some leads to trace the paths of content circulation, but more inquiry along the routes they suggested frequently resulted in either denial of such practices or efforts to hide them. I realized early in the project that my questions needed to be couched within a larger enquiry about the role of these devices in their lives. The specific information about markets and economy I was looking for would emerge somewhere in their accounts of their experiences (often as a passing mention within the overall narrative). The strategy of not seeking answers to specific questions also helped me portray a broader picture of the 'social' against which media practices and the phenomena of my research interest unfolded.

#### Research methods

Given that direct observation or participant-observation was not practical in this field situation, my primary research method was the 'long interview' or unstructured or semistructured interview. As a key qualitative research method, the long interview is recommended as an alternative to methods such as participant observation to generate ethnographically rich empirical data. As elaborated by McCracken (1988), the long interview can be carried out in several sittings spread over a period of time, and this strategy compensates for the lack of prolonged presence on the field. Its unstructured format creates space for the respondent narratives to unfold and is less intrusive compared to participant observation, making it ideal for studies such as this, which aimed to document the private interactions of users with their mobile phones. It is also ideal for studying and tracing digital offline interactions that are not contained by platforms in one place or easier to access. Moreover, interviews and informal conversations were essential to learn about users' practices on mobile phones, since it was not appropriate or even possible to look into people's phones. The narratives that I elicited as a result of such probing were helpful in understanding users' habits and practices with their phones. This approach differed from the technologized methods that have been devised to study mobile phone use (Rogers 2013), as it was transparent to the users interviewed. Interlocutors often willingly parted with sensitive information over informal discussions once the trust was built. The insights I gleaned from unstructured interviews led to more interviews, observation or visits with informants to particular places and areas of the city.

I tracked new users who consumed multimedia via phones, data packets, and the offline economy of mobile phones that supported them. The data was incomplete until I traced the connections these users and mobile phone shop owners pointed out in interviews. Users often spoke about downloads from online platforms such as YouTube, Songs.pk,

Hungama and other such web platforms. Mobile shop owners who engaged in content business also mentioned similar sources. Because most mentioned YouTube as their main source for downloading and watching videos, I started observing YouTube closely, following their leads. Most of the content consumed by these users was popular film songs, music albums, comedy clips and most importantly movies in full length.

Following the tracks that users revealed, I went online to gather more information about the sources of content. I began with the assumption that individual users will be sources of such content on web platforms, but I discovered that distribution companies (both small and big) are the major sources for most of the content downloaded and consumed from platforms such as YouTube. I also noticed that the entities that were uploading content onto YouTube were not big production houses, but distribution companies which buy CD and DVD rights, as well as online rights for content.

Subsequently, I started collecting more meta-information on these videos, and found out that there was a neat business model of distributing content through YouTube channels. As I tried to map this larger context of content consumption via mobile phones, I felt the need to understand web platforms as infrastructure in a better way. I went through the help manuals provided by Google to understand the functioning of the platform, its conditions for monetization, and other processes of commercialization. It was also necessary to explore the history of the platform to understand how YouTube has journeyed through time. Here I collected information at three levels: the nature of content made available, the ways in which the content was packaged, and details about the infrastructure and the business model.

I followed up on these research strategies by tracking down vernacular and regional distribution companies that had channels on YouTube. Following the leads of Kannada content users, I identified the key distribution companies and collected as much information as possible about the channels from their web page and YouTube profiles, noted the number of subscribers, their sub-channels, multi-channel networks that they are connected to, various kinds of content they upload on to YouTube. Finally, I identified **four** distribution companies to be included in the study—Sri Ganesh Video, Anand Audio, Total Kannada and Lahari—and approached them for interviews.

The main purpose of speaking to these companies was to learn about their YouTube business, especially new modes of distribution of content. I designed a semi-structured interview based on the preliminary research done on these channels (also based on the information available on YouTube and other websites). I conducted interviews with the people managing YouTube channels for these companies in addition to paying multiple visits to their physical sales outlets (CDs and DVDs outlets). I gathered from these interviews their strategies of extraction of value out of videos for which they have distribution rights. I discuss some of these strategies in Chapter 5; explain various kinds of rights claimed by these companies on the produced content; and show how they generate profit through the use of digital media technologies.

These various research techniques were looped in such a way that the leads and information gathered from one component or method pointed to another element and kinds of data that required different research techniques. The intention was to map the connections between what seemed to be separate and diverse areas of study. Below I briefly describe the different kinds of data collected, which I discuss elaborately in the following chapters.

#### Database

By following the multiple research methods described above, I was able to gather data on the following themes over the course of 15 months.

- 1) <u>Users of the technologies:</u> I gathered information on sharing and consumption practices through unstructured long interviews and informal observations. During the preliminary phase, I became acquainted with several members of the selected user groups and their specific media consumption and phone use practices. During the main phase of the research, drawing on the initial findings, I conducted long interviews with the same users. Through these detailed in-depth interviews, observations, and interactions, I was able to document the various technologies used (media infrastructure) and how users manipulated them.
- 2) <u>Media infrastructure:</u> From interviews I extracted details about the media infrastructure that materially supports the varied practices of sharing, and carried out a cultural reading of those technologies. I drew on available primary and secondary

sources, including technical manuals and academic writings, to make sense of specific platforms to analyse these technologies at multiple levels. This strategy helped me understand the economic and cultural aspects of these technologies and bring out the layers of interaction involved, for instance, in a simple act of sharing or exchanging content. Several of the specific technologies and media infrastructure which I investigated were:

- a) Mobile phones Operating System (OS), Bluetooth and Infrared technologies, micro- and mini-SD cards, and sharing apps. These details provided insights into the material conditions of infrastructure that facilitate everyday user practices.
- b) The Internet especially as accessed through mobile data packs in India. Mobile phones have revolutionized the Internet access in India, especially for the user groups who are the focus of this thesis. I noticed that such users have almost never used broadband or dial-up Internet connections, and they recognize the Internet technology only with data packs that telecommunication service providers offer at prices within their affordable range.
- c) Other peripheral devices I followed user leads to construct a list of the hardware and the software tools that enable the sharing of content between devices, looking specifically at applications, the kinds of hardware needed, the cost of the entire apparatus, and so on. I also documented the various applications involved in file transfer and conversion that facilitate the circulation of content in multiple file formats through networks (both online and offline).
- d) Websites Based on user leads, I mapped circulation of media content online through various websites in order to trace connections between offline and online modes of circulation. I accessed these websites via mobile phone interface in order to understand user experiences and via computer interface in order to analyse the websites themselves as specific objects that form part of a larger chain of circulation of content. As links in a chain, websites connect offline circulation practices to online media spheres when tracked from the user information. This component included observations of several elements including the location of websites, server registration details, information on content hosting, funding, maintenance costs, logistics of downloading and uploading content, file formats and sharing options available, website traffic and monitoring details, and so on.

- 3) Media outlets and markets: I spent approximately two months observing and studying media markets and mobile phone shops, using ethnographic methods and interviews. These entities operate at multiple levels, bringing together users and technologies. Many of the outlets were also spaces of learning for users, who learnt about different functionalities and uses of various technologies and devices in the shops. These markets are also spaces where users with similar interests or who use these technologies in particular ways, come together. Key sites such as National Market area and S.P. Road electronic goods market in Bangalore, as well as small mobile phone shops across the city, were important research sites in this category.
- 4) <u>Distribution companies:</u> The last phase of the research necessitated collection of data on distribution companies (which were behind CD and DVD outlets and YouTube channels). Interactions and interviews with such companies helped me sharpen my understanding on media infrastructure and also gave me inputs on the functioning of media industry.
- 5) In addition to gathering qualitative data, I collected some quantitative market information from secondary and primary sources and through interviews at companies that cater to the requirements of these users.

Details of the data collected are provided in the Appendix.

#### Methodological complexities and challenges

The anthropological approach I adopted for the study has taken an independent route diverging from the established methods. The field situations I found myself in continuously challenged the methodological training that I received in the classroom or learnt from reading anthropological literature. A user's interaction with a mobile phone is at once personal and social. Attempts to capture the sociality of it constantly made me attentive to the private nature of these practices. The extra-legal nature of some activities further complicated the data collection process.

Every anthropologist faces some challenges initially to break the barriers and get people to share information with her, and these include ethical challenges. But there is more challenge when the field is mired in extra-legality, and one is studying aspects that people

do not generally want to speak about. This was particularly evident when I was working in the National Market area. A vendor who used to sell DVDs and CDs in his previous avatar snatched my pen and book to see if I was carrying a spy camera, and asked me if I was a journalist on a sting operation or a policewoman in plain clothes. Moreover, my identity as a woman, my appearance and personality sometimes restricted the opportunities I had for interaction and research on field. Some questions have cost me very dearly. Those very same mistakes have taught me safe ways to conduct conversations so as to not cause discomfort to the interviewees. All these limitations have certainly impacted the quality of information I have gathered. For instance, I have not sufficiently reflected on personal choices or private tastes but have only focused on practices that are commonly found among the users I have studied.

I have borrowed heavily from the approaches and methods of the discipline of Anthropology. I feel there is a need to go back to the basics of what the well-established methods have to offer. The old ethnographic method of relating to the interviewee (first and foremost) has more significance in research situations such as mine. My own familiarity with the city and its media scenario since my college days certainly influenced the ways in which I have seen and known the city, and made the background work and the choice of locations and people for study easier. To understand the working and functioning of the media objects, I have relied on the information given by the manuals, help documents, and other sources. The interpretation, however, has been my own. Circulation is a very difficult process to document and study. In order to trace media objects through technological circuits, I have relied on simple, yet powerful method of tracking social career of things. Such an eclectic choice in methods makes this work multidisciplinary.

\*\*\*

In this chapter I have provided the background for the study, outlined the research problem and methods employed, and discussed the methodological orientation that guided this work. In the next chapter, I review several relevant bodies of literature that speak to the findings of this research and elaborate the theoretical approach that frames my arguments in the main chapters.

# Chapter 2

# REVIEW OF LITERATURE: SOCIALITY, INFORMALITY AND ACCUMULATION

The thesis is structured around three major themes, which are elaborated in the three main chapters. Chapter 3 discusses the new users on the Indian digital horizon and their practices related to multimedia consumption, highlighting the **sociality** and texture of their media experience in work and everyday life contexts. Chapter 4, on the offline media economy, describes the **informality and spatiality** of many media practices. The discussion is based mainly on fieldwork carried out in mobile phone shops, a space that is central to the exchange of essential technological knowledge and skills related to multimedia consumption. While Chapter 4 discusses the offline media economy, Chapter 5 connects this discussion to the debates around global digital media infrastructure and digital capitalism. Here I show how various social and commercial practices of circulation and distribution of media content are manifested and transformed in response to user practices and market changes. I particularly focus on the emergent modes of **accumulation** in media content industries.

In this chapter, I elaborate a conceptual framework to tie together these three dimensions of new media practices, and discuss the relevant bodies of literature that frame the arguments to follow. I also foreground some contemporary debates that have informed the questions I pursue in this thesis. The theoretical framework that I employ synthesizes the three aspects of the phenomenon under study, mentioned above, elaborating the links between them. In particular, I try to understand the dynamics between market and the social domain of offline consumption and sharing practices. By offline, I refer to user interactions and exchanges that occur when users are disconnected from the Internet. The digital offline economy and consumption practices are a comparatively understudied area in new media studies.

In the first section, I respond to the theoretical debates that frame the discourse on access and use of digital technologies in India and elsewhere. This section brings into focus the different socialities of media use, especially the question of access, and establishes why understanding the underlying sociality of media use is important not just from the academic point of view (for the purpose of documentation of diversity and heterogeneity), but also to influence the framing of developmental projects and state policies that target different groups of users. I do not offer any specific recommendations for interventionist programmes in this thesis. However, I hope that the insights developed here will provide relevant knowledge about the ground realities that are addressed by such projects. The second section synthesizes the debates on informal media spaces and theoretically situates the changes witnessed since the 2000s in the informal media economy. The third section focuses on the media economy and develops a conceptual framework to explain the production of capitalist value with respect to multimedia content via digital technologies. The central concept that I employ here is that of 'value'. Here, I also situate the thesis within the literature on informational or digital capitalism. By bringing the discussion back to the question of capital accumulation and the production of value, I link it to the issue of access from the perspective of users, and specifically consumers. I attempt to understand how capital is reinventing itself in response to the changes in a highly competitive digitized environment (where many people are now equipped with copying and sharing technologies and participate in 'sharing economies').

This thesis is located primarily within the interdisciplinary area of media studies. Media studies is a relatively new area of research that draws on theoretical and methodological approaches from a wide range of disciplines. It is not governed by strictly drawn boundaries and well-defined methodological or theoretical approaches but is a loose aggregate of studies that engage with the question of medium and its role in shaping social phenomena. In terms of approach, media studies incorporates humanistic, interpretive, historical, textual, semiotic, and empirical approaches (Mitchell and Hansen 2010). In addition, I have drawn on insights from other interdisciplinary fields such as Science and Technology Studies (STS). I particularly subscribe to the formulations of social theorists who attempt to overcome the traditional 'technology and society' dichotomy by ascribing 'agency' to objects and technologies as well as to human actors (Latour 2005).

# Two Streams of Enquiry: Techno-sociality and Sociality of Technology

Ever since scholars began to study the Internet and virtuality in the late 1980s and 1990s, two dominant trends can be observed in terms of orientation and approach. The early generation of studies were mainly carried out within the domain of cultural studies, where scholars documented and analysed the new communities and practices that emerged in the virtual space. David Bell's *An Introduction to Cybercultures* (2001), and his four edited volumes on *Critical Concepts in Media and Cultural Studies*, synthesized a decade of key scholarship in this domain. Silver (2006) provides a useful review of studies carried out in the 1990s and the 2000s and sketches the dominant trends in cyberculture studies. He discusses the early fascination with the technological novelty of the Internet combined with the dream of global unity (virtual space providing a context to transcend social differences), which led to studies that conceptualized the web as one community. As scholars began to notice real world social differences on the web, the naïve techdetermined categories of the 'virtual' gave way to studies that documented the ways in which 'real world' social categories impact the developments in cyberspace. Silver terms this trend in the late 1990s and early 2000s as critical cyberculture studies.

It is important note that the studies collected in the Bell volumes do not treat the Internet and all computer-mediated communication as something revolutionary that radically transforms how we think socially and culturally. Although they note the novelty of the technology induced virtual cultures and environments, these scholars are wary of advocating an absolute exceptionality of the virtual spaces. Instead they believe that the virtual is always already rooted in some or the other pre-defined and existent social differences and categories.

I understand the trend instituted by David Bell and other scholars as inquiries into **techno-sociality**—the social catalysed by the technological—where technology is seen as a catalyst instrumental in changing the existing social forms. This stream of inquiry allows one to examine nationalist aspirations, or the articulation, defiance or transcendence of gender, racial and other forms of identity in virtual space. While such

an orientation is productive and necessary to understand the virtual within the larger domain of the social (and to resist the claim of its exceptionality from the immediate social), the attention to older social forms that are assumed to get further congealed or transformed by their intersection with technology is methodologically restrictive (in terms of the possibilities it offers). The entry point from predefined social forms and categories such as gender, race, class or nation, and the view of technology as an external element acting on these forms and effecting some transformation, severely restricts the scope of studying technology and its existence in society.

A more recent trend, especially popular within Science and Technology Studies (STS), is to enquire into the **sociality of technology** – to try to understand its social existence. From this perspective, technology is not an extraneous element bringing about social change but is itself a product of society or social processes. It is already in the domain we define as 'social'. Such an approach overcomes the claims of exceptionalism of technology. In this approach, technology is not understood as a well-defined product or a structure influencing societal change; instead it is seen as an entity in a continuous process of formation – defined and shaped by use. Thus, the domains of the technological and the social co-evolve and co-constitute each other, rather than existing in separate silos. Some of the significant studies that established this trend include Latour's (1993, 2005) actor network theory and his theories of the modern; Fischer's (2009, 2016) attempts to define an anthropology of science and technology; and Sunder Rajan's (2006) work on biotechnologies, viewed not as well-defined objects but as redefined and reshaped by pharmaceutical industries, research collectives, labs, market, and so on.

Such approaches may also be distinguished from the more technologized approaches to the study of this new medium, such as the Digital Methods Initiative (DMI). DMI is a cluster of methods devised by several Internet Studies research groups based in Europe, directed by Richard Rogers, and made available through online wikipages.<sup>8</sup> This initiative makes a distinction between the 'digitally native' and the 'digitized' objects, with the former emerging from the new medium itself and the latter migrating from elsewhere into the realm of the digital. This distinction paves the way for reconceptualizing social

-

<sup>8</sup> https://wiki.digitalmethods.net/

research at the intersection of digital technologies, not by modifying already established social science methods such as ethnography or questionnaire surveys to suit the context of the new medium, but by devising new methods tailored to the medium to make sense of objects such as hyperlinks, hypertext, recommendations, Facebook likes, shares, tweets, and so on, which are giving rise to differently mediated cultural and social. In such research, programmes are coded to collect data from dynamically evolving digital objects (Rogers 2013).

Many scholars have criticized such medium focused theories, which they claim give deterministic power to technology by the virtue of their orientation. Scholars such as Couldry (2012) critique this trend within media studies promoted by eminent scholars such as Kittler (1999). Couldry (2012) propounds a more 'socially oriented theory of medium' that studies social practices associated with a medium, moving away from the intense focus on the medium as an abstract external force morphing social structures. As a 'socially oriented theory of medium' this stream of thought has a very balanced methodological approach to studying social change at the intersection of technology. Such an approach is an acknowledgement of the mutually influencing forces of the social and the technological in bringing about social change.

The present study is aligned more with recent anthropological understandings of technology, both in approach and orientation. Instead of starting from the predefined categories of the social, or from the established concepts of what constitutes technology, I begin from the point of practical use and deployment of technology and endeavour to map the domain of the 'social' that emerges around it. The social thus discovered may or may not resemble existing forms of social. I attempt to be sensitive to myriad relationships and possibilities at the intersection of the social and the technological.

#### Access through use

Adopting the method of tracing the sociality of technology, I recognize two important concepts which can be used as anchors around which to undertake such an exercise – access and use. The question of access has been very important to the social and political debates around digital technologies, both in India and elsewhere. The most important debate on the technological and digital divide has been on the question of access and use. The discursive framing of the issue of access to digital technologies has been

predominantly done through developmentalist lens. The language of empowerment and disempowerment associated with access is a very familiar one – whether it is the divide between first and third world nations or rural and urban divide with respect to the Internet connectivity and well-functioning infrastructure. The question of access is considered mainly from the vantage point of providers of infrastructure, which is either the state or the market (the corporate sector). The corporate sector has joined the state on many such projects through initiatives undertaken as part of corporate social responsibility. We commonly find two themes with respect to question of access surrounding infrastructure—the existence and the effective functioning of the infrastructure—but rarely is it considered from the point of view of use. Thus, the question of access, as framed in the currently dominant, top-down approach to development thought and practice, is blind to the desires and contextual needs of the actual users (see Chapter 1).

Many NGOs and think-tanks working and researching on the ground are preoccupied with furthering state and corporate agendas for the effective delivery of benefits of ICTs to the target groups. The discourse adopted by NGOs—working on issues such as digital divide—highlights the structural constraints to achieving smooth and universal access, and is restricted to the issues of infrastructure and delivery. When developmental projects are not able to achieve the desired objectives, the outcomes are usually termed as failures, regardless of the ingenious ways in which beneficiaries of those projects have made use of technologies.

In contrast to these trends, other scholars have attempted to take the debate on access further than a mere consideration of infrastructure. For instance, Mazzarella (2010) captures the burden placed on digital and communication technologies to fulfil democratic dreams of the Indian state for citizen participation, and the ensuing disillusionment at the end of the millennium. His arguments move past the deadlock of developmentalist excitement surrounding ICT4D projects and the routine complaints of failure, pointing to the new social and economic life that information and communication technologies have unleashed in India.

Similarly, Rajadhyaksha's monograph (2011) critically engages with the question of access, posing the question of access around the last mile problem<sup>9</sup> as the state attempts to reach every single household. Drawing parallels with radio and the democratic aspirations (of the state) it carried on its shoulders in the Nehruvian era, Rajadhyaksha argues that the last mile is a 'conceptual hurdle' and not a 'physical' one. The tension inherent in the question of access surfaces when the last mile is bridged by some unauthorized entity without legitimate sanction of the state. Instead of debating and questioning the existence and legitimacy of the agent that occupies the zone of last mile, it is important to look at the actuality of access on the ground. What the state terms as its own failure to bridge the last mile may actually be a connection that is not desirable to the state, which it then compartmentalizes, controls and restricts as unauthorized access against uses which it deems 'legitimate and useful' to further a particular agenda. Rajadhyaksha's critique of developmentalist and state conceptualizations of access is very helpful to direct our attention to a much-neglected perspective on access – that of users and the 'unauthorized' groups that provide them access. Access—when viewed not as a state or corporate concern associated with the project of development, but as an issue that is of utmost importance to users—will include other factors such as desires and aspirations of users of a particular technology, the affordability of options open to them, and the specific uses which are contextually relevant and meaningful to them. Access, when reframed through the eyes of users, conceptually opens up new avenues to draw distinctions among users, over and above the social categories that define them. I briefly discuss this question in the following section.

#### Distinction of users based on access

The conceptualization of digital in some of the earlier literature hinges on the distinction between virtual and real. For instance, Rheingold's (1993) rethinking of virtual

<sup>&</sup>lt;sup>9</sup> The 'last mile problem' in telecommunication parlance broadly refers to that final step which is required to connect any big network or infrastructure to an end user. Last mile is a problem for the state (which is otherwise successful in bringing in and connecting a particular location to the larger infrastructure); because it involves taking care of the needs of end users. In such a scenario, it is usually a variety of local players who connect the end user to the larger infrastructure by bridging the gap left unfilled by the state. However, the state does not view this bridge as a 'legitimate connection' since it lacks the sanction of its authority.

communities is preoccupied with defining the real and the virtual. As discussed earlier, several studies (Bromberg 1996; Wellman and Gulia 1997) focus on how the human-self unravels in the virtual space, the identities it takes on, labels it wears, and so on. Later scholars of cyberculture studies (Kolko 2000; Wilson and Peterson 2002) responded to this earlier literature by bringing back the social categories of the real world, and by questioning the assumption that that cyberspace is an alternate reality where the usual social distinctions of the real world do not hold.

Both in the earlier literature and later studies of cyber cultures, much of the scholarly discourse on digital technologies focused on the figure of 'power user' – the user who is at the forefront of using new technologies. Both in terms of use and access, the implicit subject of study has been the early adopters who defined the technology and its use in particular ways – although there have been attempts to bring into the discussion diverse social groups and their media practices. Even in studies that focus on such diverse user groups, the questions are not as much about use and practice as about race, nation, and other forms of social identity. I characterize this trend as the identity-based discourse within cyber culture studies (Turkle 1995; Kolko 2000; Bell 2001; Miller and Slater 2006). Many such studies underscore social marginality based on the identities of users, rather than defining marginality in terms of technological access and use.

A few studies have distinguished users based on their usage of the medium - Prensky's (2001) classification of users into 'digital natives' and 'digital immigrants' is a distinction based on the ways in which each group uses the medium. Digital natives are mostly 'millennials' (usually adolescent and young adults) who navigate digital technologies with an ease that is difficult for digital immigrants of the early generation (who are not used to digital technologies while growing up, but only later adapted to the requirements of the age). A more recent study by Shah and Jansen (2011) builds on Prensky's classification and shifts the focus to 'digital alternatives' – digital natives in different geographical locations, especially India and other Asian countries. Such studies of digital technologies depart from previous trends by focusing on users, practices and experience, rather than on 'virtual space' viewed as an alternative to the real. Digital technologies become tools that enable users to do something. But even in this literature there is often a lack of attention to users who are not conventionally considered 'tech savvy'. Instead, the focus

is on the young, English educated, middle-class, competent technology users who assemble and mobilize the possibilities of the digital.

In this thesis, I depart from these studies by marking out a category of marginalized users, whose marginality is rooted not just in 'the social' but also in 'the technological'. A synthesis of these two approaches allows an analytical purchase that is useful in describing a new group of users who have emerged with the spread of mobile phones. Starting from a technological point allows me to sketch a media universe which would not be possible if I start from the social. Marginality is first understood from the point of view of access and use, which helps me not to classify users into pre-defined social categories such as class, caste or gender. I use the term 'digitally marginalized' to refer to those users who have experienced the digital only through mobile phones and delineate the practices that are specific to them. For such users, socio-economic marginality intersects with their digital marginality, restraining them from realizing the maximum potential from the digital medium.

Access becomes an important entry point in my discussion of the various kinds of users described in this work. Use is tied to access and can be understood not just materially in terms of devices used, affordability, scale, and class background of the users of the technology, but also in terms of the differences in social and cultural practices that are engendered by a particular kind of access. The central categorization used in the thesis mainly the differentiation between users—is based on a particular theoretical understanding of access and what it does. To elaborate, access through particular devices (mobile phones) creates distinct conditions of possibility for specific practices to emerge. The interface of the device also shapes the possibilities and terms of entry. For instance, the experience of mobile phones as a digital medium at the user-end is very different from that of computers, especially in terms of the skills required. It is this aspect that has largely contributed to the widespread acceptance and spread of mobile phones across most social classes in India (defined by sharp differences in terms of literacy and educational level). It is important to document this difference produced in the digital medium through a particular device and examine how access to it shapes the practices of users. Social aspects such as life and work contexts further deepen the fundamental differences between users. Such differences also impact how the Internet is experienced, thus calling for a revision of current accounts of Internet use.

Sterne (2006) advocates cultural studies of the Internet, stressing the need to 'denaturalize' and 'radically contextualize the Internet'. Shah (2011), in his introduction to a series of monographs on histories of the Internet, points to lacunae in our narratives of the Internet technologies in India, and criticizes the tendency to narrativize the histories of Internet around state and corporate interests. He highlights the common fallacy in studies of the Internet, which is that they treat it mainly as the product of the West, thus overlooking its specific trajectories across diverse geographies evident in terms of heterogeneity in its use and experience. In the spirit of such approaches, this thesis also emphasizes the need to document and analyse differences in media use as they manifest in divergent life and work contexts. Contrary to the idea of universality of media use, mapping such diversities in the sociality of media use will enrich our understanding not only in different geographical locales but also in diverse cultural contexts. Often within the same city, there is such heterogeneity and diversity of media use which cannot be seen if one is not attentive to differences in use. Thus, the users who are the focus of this thesis are not divided in terms of geographical remoteness or quality of infrastructure, but are very much part of the thriving city life with uninterrupted connectivity and access. However, what they access and how they access it—in short, the use to which they put these devices—divides them from the typical tech-savvy power users usually discussed in the literature. I elaborate more on the category of the 'digitally marginalized' in the next chapter.

# Informality and Media Infrastructure

In the Introduction, I suggested that we need to look at mobile phones beyond their functionality as communication devices, and that they should be studied as digital technologies based on the repertoire of uses and affordances they offer. Here I expand on the idea of mobile phones as a digital technology, and also show how they constitute important access points to an entire media infrastructure.

Materially, digital devices such as mobile phones are an outcome of many confluences. In the previous chapter, I outlined the technological, industrial and commercial shifts which were instrumental in the integration of different digital technologies – referred to in the

literature as media convergence. The social existence of any media form is partly shaped by the infrastructure which supports it. By infrastructure, I mean not just the technology but the whole network of human actors who are important links in enabling access to a media technology. The diffusion of cassette technology in India, for example, depended on an extensive network of distributors of imported cassette players in big media markets, distributors in small towns who sold players as well as audio cassettes, and a web of service men and sellers of cassettes in almost every neighbourhood. These actors recorded cassettes, produced mixed tapes, and offered repair services. All these people and institutions together constituted the infrastructure of cassette technology in India. Similarly, the popularization of video cassette technology depended on video cassette libraries which rented out video tapes and players. Likewise, the spread of mobile phones as a technology to the remotest corners in India is supported by a large network of many different global and local entities and actors.

The sociality of media experience in India (and broadly in South Asia) cannot be understood without reference to the idea of informality. Rajadhyaksha (2011) notes that the problem of the 'last mile' or failure of technologies to reach the people is not solely a problem of infrastructure, but is about not being able to achieve the outcome envisioned by the state and corporate players. In locations where the state has established the required infrastructure by starting tele-centres, observers have complained that they have become places of pleasure rather than fulfilling their intended functions of empowering citizens to enhance their livelihood opportunities and facilitating access to government services. According to this state-driven logic, such a ground reality signals failure. But if one were not to measure these uses of digital infrastructure against the state or corporate agenda, the field opens up the study to myriad possibilities often revealing a rich social existence of technology based on use. The technology can be seen as located in concrete and specific life contexts even though the scene appears furthest from developmentalist visions of the state.

#### Piracy: Access by proxy?

Subversions of infrastructure through use, or the creation of unauthorized infrastructure in the absence of state/market provided infrastructure, indicate that there is a life to technology that cannot be controlled and directed by rules and regulations. The story of access in countries of the Global South such as India cannot be told apart from the story

of 'piracy'. This is not to imply that piracy does not exist in the post-industrial world, but only that piracy acquires a special meaning wherever access has not been fully achieved. Piracy, or informal, unauthorized channels and avenues of access, is central to (not parallel or alternative to) access of media infrastructure in India. Interestingly, most studies that discuss 'piracy' in non-western contexts have framed it as a political (and not a legal) issue, highlighting the problem of access and the success of informal networks in providing what the state and the market cannot. For example, Pang's (2004) work on VCD piracy in China explores the cultural meanings of piracy in the face of global domination and control of world cinema by the Hollywood film industry. The study points out the contradictory moves by the western cultural industries, which aspire to create a desire among Asians for western cultural products in order to capitalize on it, while at the same time criminalizing local practices when Asian markets escape their control and cater to the same desire. Similarly, Dent (2012) relates CD and DVD music piracy in Brazil to the neoliberal paradigm. He discusses the co-occurrence of unauthorized and authorized channels of distribution, a practice that is represented by local actors as a response to the injustice of international markets (in terms of pricing) by offering world music at affordable prices to Brazilian audience.

In the Indian context, Athique (2008), writing on media piracy (especially movies) in India, shows how the very production of films in many instances is funded by informal and underworld financial networks. In spite of the conspicuous presence of Bollywood and other regional language film industries, the culture industry in India is largely unorganized and is connected to underworld mafias, he points out. The connections with informal financial networks make it difficult for many film producers to organize and launch a consolidated attack against pirate networks. In fact, those same networks are absolutely essential for the effective and smooth working of the processes of film production and distribution. Sundaram (2010), who documents the development of video piracy in its myriad forms from the 1980s onwards, frames it within a theory of 'media modernity' (in contrast to industrial modernity), covering a range of media including audio cassettes, VCRs, CDs, DVDs as well as media markets, cable television, and so on. His arguments draw on earlier studies by Manuel (1991), Larkin (2008) and other scholars who theorized the connections between piracy and media culture in postcolonial contexts. Though Sundaram discusses video and film storage in the digital medium and their pirated distribution through compact discs and DVDs, he does not touch on piracy via digital media powered and accelerated by the Internet. Sundaram's analysis is limited to what he calls 'the postcolonial version of piracy', which works through the networks of bazaars and 'face-to-face contact' than 'individual online downloads'. In an earlier work, Sundaram (1999) terms this piracy induced modernity 'recycled modernity', arguing that it is unconcerned with western modernity's search for originality.

Sundaram (2010) also tries to capture the new ways of fetching and distributing media objects, tracing the links between local media markets such as Paalika Bazaar, Nehru Place, and Laipat Rai markets in Delhi, National Market in Bangalore, and Lamington Road market in Mumbai, on the one hand, and global circuits of media objects on the other. He observes that videos are directly sourced from international circuits, bypassing governmental and industry regulations and argues that this new configuration of sourcing and distributing videos via pirate networks has effects on older forms of video and cinema reception. With the coming of cable television, the spread of the video especially cinema recorded on a video tape/CD and telecast – adds another dimension to pirate networks. Video, as a medium earlier restricted to video enthusiasts as recorders, archivists and pirates, becomes an everyday banal object of consumption with cinema as the main content of the medium in this format. Sundaram understands piracy here in terms of an ethical commitment to provide access to media which was closed off to millions - enabling participation in the immediacy of international culture, as Larkin (2008) puts it. Revisiting his earlier work, Sundaram (2013) in his essay comments on the excess of postcolonial piracy and hints at the new modes of circulation and consumption of media objects, including cell phone downloads.

Liang's (2005) work on piracy has been highly influential in these debates. He regards piracy not as resistance to cultural hegemonies but as an effort to get access to cultural networks from which many people are excluded. Considering the disparity in terms of access between developed and developing nations, he views people who are engaged in pirate practices in Asia as the 'first generation of the age of access' (2005: 13). Like Sundaram, Liang views the dispersed logic of production, distribution and consumption of media artefacts as 'postcolonial aspirations for modernity'. He also historicizes the ideas of author and originality, drawing on Barthes and Foucault, and stresses the question of 'what piracy does?' instead of asking what it is. Accordingly, the notion that

piracy is bad/wrong is only valid in the discussion on intellectual property rights, which, he argues, places in opposition the Asian subaltern who 'mindlessly copies and subjects himself/herself to copy tradition' to the 'American downloader who innocently downloads' and uses the downloaded content creatively. The silence about, and condemnation of, pirate practices, he notes, 'redeems' American downloader in relation to Asian 'pirate' (2005: 359) who challenges the 'developmentalist dreams' of nation-states by occupying 'the domain of immoral, sinful pleasure', improvising on communications technology to satisfy 'desire'.

Copy becomes to the immaterial virtual world what commodity is to the capitalist world. Liang (2002) explores how the expansion of intellectual property rights (IPR) into the public domain results in privatization of the public, suggesting that this expansion should be understood in the larger context of globalization, which creates 'visibility' for marginal practices like piracy. He also critiques the unquestioning acceptance of the idea of a global commons without looking at the discourse on piracy, which makes possible the idea of commons in the first place. By rejecting the idea of a singular global public and drawing instead on Sundaram's 'cyberpublics', Liang proposes the concept of 'global publics', which unlike the grand global commons discourse does not refuse to speak about marginal practices (piracy implied) trying to catch up with the 'global'. He discusses how digital technology, by rewarding speed, challenges control of space and time by capital, illustrated through the example of the system of distribution of motion pictures called 'windowing' (where distributors control the release of a film in different media forms, first in theatres, then through telecast and then as DVDs). Digital technologies, he argues, disrupt the system by making it possible to release copies of a film in different media forms without respecting distribution rights.

When we predefine and restrict a range of practices into a binary of 'legality' and 'illegality', which are produced by a specific legal regime (especially one that is based on institutionalized notions of intellectual property), we are unable to see the larger picture and the versatility that is inherent in these varied practices of consumption and sharing. The studies in the Indian context mentioned above do not treat the issue of piracy as a strictly legal and commercial problem. It may be useful to instead look at these practices as new modes of consumption and circulation that have emerged on the scene after the arrival of digital media technologies, and to explore their effects on older and still existing

modes of production and distribution. This approach will also help to connect these practices historically with earlier modes of production, distribution, and consumption of cultural goods, and to trace the changes that have come about because of digital media technologies and their specific deployment at the ground level by users. We also need to closely examine the changes in consumption patterns to see if these new practices are radically different from other modes of consumption and circulation through non-digital media forms, or whether they exist in continuum with earlier practices. In addition, it is useful to look at how such 'pirate' practices influence the emergent modes of distribution of media content through digital technologies and online platforms. I elaborate more on this in chapter 5.

#### Bangalore and informality of digital media use

This study is situated in the city of Bangalore, known as the IT city or the 'Silicon Valley' of India. Bangalore has received scholarly attention for a specific kind of technological presence – the export-oriented IT and IT-enabled services (ITES) industries. Heitzman's Network City (2004), the volume edited by Carol Upadhya and A.R. Vasavi (2008), and the latest book by Upadhya (2016) have focused on those aspects of Bangalore's development, especially the new work cultures mediated by digital technologies. In contrast to these studies, this thesis reveals a different universe of digital media use in Bangalore, one that involves the 'marginal' sections of the city's populace rather than the elite and middle classes. In terms of media consumption, these non-middle class groups are in the majority. Mobile phones as a digital medium define how such people work, in many cases. Their work life may not always be mediated by digital technologies, but it has definitely been marked by media use. It is this contrast that I want to highlight in this discussion. In terms of the spatiality of such practices in the city, they are ubiquitous and

-

<sup>&</sup>lt;sup>10</sup> I would like to draw a contrast here between the IT workforce, whose work is reliant on and mediated by digital technologies, and the 'marginal' users I focus on in this thesis. Unlike the former, digital technologies are not absolutely essential to the work of the informal sector workers I discuss here. But they help them sustain themselves while at work. Of course, work in platform businesses such as Ola and Uber is an economic activity that is 'informal' or beyond the 'formal sector', yet is mediated by digital technologies. Some of the users I discuss here are part of such workforces. However, my interest here is not the use of digital technology for work, as much as what they do with these technologies during working hours.

exist alongside formal work environments. The economy that drives and caters to this social category is very much a street economy, as Athique (2014) mentions in his discussion of India's informal media economy with respect to operation, spread, and diffusion of technology. I elaborate on the diffusion part of this argument in the fourth chapter on mobile phone shops, and show how they have been very important in passing on the essential and required technological skills and knowledge to these new users and help them navigate various digital interfaces.

#### Accumulation:

### Theorizing Digital Media and the Production of Value

I have mentioned the technological and other preconditions which shaped mobile phones into a digital technology in the discussion of media convergence above. Here I draw attention to the ways in which the telecommunication and entertainment industry have grown around mobile phone technology, forming a stronger convergence of the media infrastructure. Further, innovations in distribution of telecommunication and entertainment services have expanded the access and reach of this infrastructure to non-elite sections of the society. For instance, small denomination mobile prepaid currency top-ups for voice and data services, which are offered by most telecommunication service providers (through agents spread across cities, town, and rural areas operating on almost every other street) has brought the Internet within the reach of those users who cannot afford broadband services through computers. Once such users enter the web, the entertainment industry discovers a new market, overwhelming in terms of sheer numbers, forcing it to become inventive in the way it packages and delivers content to these new users. I discuss some of these developments in the following chapters.

### Mobile phones as access points to media infrastructure

I want to emphasize here is the creation of an entirely new media infrastructure which is capable of absorbing the old media forms into a single network, with delivery and access options available on a small, easy-to-use, and affordable handset. A smart phone, or even a good feature phone, signifies an access point through which a user can enjoy the possibilities of a vast media infrastructure. However, entertainment is not the only industry that is trying to reap benefits out this ever-expanding infrastructure. The

burgeoning start-up and entrepreneurial culture is testimony to how different commercial interests are trying to reinvent themselves on this media and communication infrastructure. Some of these are old businesses which are extending themselves online while simultaneously retaining their presence in the non-virtual world. We are witnessing innovations in the organizational and marketing domains, resulting in the emergence of a new economy which is often referred to as digital economy.

While it is important to study and document empirically the cultures and media practices of people in their everyday lives, any such study is not complete if the roles of state and market in shaping these practices go unexamined. As much as the adoption of a bottomup approach and the resultant shift in vantage point of enquiry mark the contributions of this research and its difference and departure from the earlier ones, it is productive to see how insights from more top-down approaches can be synthesized to supplement our understanding of an object under study. In this section and in Chapter 5, I move outward to consider wider questions of the media economy and market, synthesizing existing knowledge and debates on informational capitalism or digital capitalism and drawing on my field research on media distribution in Bangalore. The objective is to map the emerging trends as digital technologies become almost all pervasive, transforming how we think about markets and commerce. Although I touch upon very broad aspects of digital and informational capitalism and try to draw a contrast with earlier forms of capitalism, the insights in that chapter are mostly based on my observations on content production and distribution companies, and their phenomenal rise in the contemporary media landscape in India.

Above I have outlined how the question of access differs when seen from the perspective of users, and how the presence of informal entities and networks have given a different turn to the problem of access as usually envisioned by the state and corporate actors. In many instances, access is not an issue – at least not to those users who make specific use of such technologies. In fact, the ground reality is that the market has to contend with users who have access (even if unauthorized), and who may subvert the technologies to meet their own ends, rather than strictly aligning with the interests of either the state or the market. In such instances, capital is forced to respond to the situation and redefine its strategies to safeguard profits. This section focuses on that segment of the economy that has witnessed rapid development in response to these new

users and their practices since the spread of mobile phones. I forge a connection with some of the questions posed above: how does access and its sociality relate to changes in the media economy, especially with respect to media content? How do they redefine economy in new ways?

Sociality of media use effects parallel changes in media economy. When we begin with extant definitions of commerce and then bring in the question of technology, we are trapped within the understandings of commerce that are propagated by business interests. A similar kind of distinction that I made between techno-sociality and sociality of technology holds true here. 'How businesses respond to technological change?' is in itself a very interesting question to bring out the contradictions that constitute the field. Here I draw attention to the fact that the raging copyright controversies of 2000s have lost their appeal, especially to market players. Instead, the contemporary media industry has been intelligently responding to the initial crisis created by digital technologies. YouTube and other platforms which carried the communitarian hopes of digital emancipation in the early phase have accommodated the commercial interests with such an ease that it is difficult to define the nature of such entities. YouTube itself started as a community archive for amateur videos, but today it no longer remains just a video hosting and sharing platform. Although the idea of media archive<sup>11</sup> was already available to us (Jones 2005), we had not foreseen the ways in which capital (through the power of Internet) would exploit the endless possibilities created by archives for profit and commercialization.

The theoretical context for this part of thesis can be located in the scholarship on capitalism and its transitions over time, especially in the literature on informational capitalism and the later discussion on contemporary digital economy. In addition to presenting an overview of the scholarly trajectory of how capitalism has been understood

<sup>&</sup>lt;sup>11</sup> Jones (2005) traces the history of archives from 1992, starting with the Linux documentation project that shared software and code with a community of people with common interests. From the project that documented the software, this idea of interest related archives slowly expands to other projects on the web. Contributor-run and contributor-managed archives were created for recorded live music (etree.org), and other media objects such as films, albums through torrents technology (Bit Torrent).

and studied in the context of digital media, this review indicates the need for a shift in focus to understand this contemporary form of capitalism. Summarizing different approaches that have been adopted to understand the variants of capitalism, I show how they are not sufficient to comprehend the contemporary digital variant or stage of capitalism. I draw upon different disciplines and varied sources, including insights from practitioners and entrepreneurs who form the vanguard of this new form of capitalism. Thus, the theoretical framework for this thesis is not derived from a single, grand theoretical paradigm. Rather, it takes a syncretic and eclectic approach built from insights drawn from various streams of thought.

From a media studies perspective, the medium specificity of any object illuminates its ontological value, which is necessary to make sense of all phenomena and processes associated with that particular object. Media scholarship is invested in providing equal attention to both formal and substantial aspects of the object under study. In fact, many media scholars opine that the form in which substance is expressed is very crucial in defining the nature of any object. McLuhan's (1964) famous statement, 'the medium is the message', best captures this perspective. By delineating the aspects that are digital, it is possible to describe the new object and differentiate it from the earlier forms which are connected to its current manifestation. The substance of digital multimedia is sound, music and moving pictures, which can be expressed and disseminated in different forms, such as gramophone records, cassettes, and celluloid films. The forms give these substances their specific identities. Thus, medium-specific descriptions of objects become important sources to explain both their social existence and historicity. 12 Once the description of digital multimedia is done both in terms of its substance and form (with an emphasis on form), the next step is to derive a framework to understand the cultural economy associated with it – the focus of this thesis. I adopt the methodological approach of tracing the social career of things to illuminate the nature and functioning of this economy.

<sup>&</sup>lt;sup>12</sup> The study of literacy entails looking at the cultural economy of manuscript and print. Similarly, the study of sound and music can be carried out by tracing various mechanisms and forms through which they were expressed, recorded and disseminated.

In this section I attempt to theorize the production of value by different entities at various points in the social and commercial career of digital multimedia. The cultural economy that unfolds at the point of consumption of digital multimedia via mobile phones can be situated within the socio-economic context of extraction/realization of value of digital objects on new media and communication infrastructure. The extensive literature on informational, digital, and network capitalism theoretically frames the discussion. As a digital object, multimedia is similar to other digital objects, hence one can rely on the insights produced by other studies to understand digital multimedia. The objective is to devise a framework to simultaneously understand two aspects – 'digital' and 'social/cultural' – underlying the phenomenon of multimedia consumption via mobile phones.

#### Capitalism and ICTs: Conceptual differences and terminological shifts

Many scholars have tried to theorize the transition in global capitalism since the 1960s. There is a diverse body of literature which discusses the shift in economic processes and their organization, the effects of these new innovations on everyday life, and the resultant changes in the human condition. The terminological variations in the academic understanding of these changes point to a progression of scholarly preoccupations and paradigm shifts in understanding the development of capitalism. For instance, we see a shift from broad descriptive terms modifying the word 'economy', such as 'post-industrial', 'service', and 'knowledge', to more technological terms such as 'information', 'internet-based', 'network', and most recently 'digital'. Terms such as 'post-industrial society' register and describe the change in temporal terms, <sup>13</sup> whereas the other terms are more descriptive and outline the characteristics of changes resulting from technological innovations.

Touraine's (1971) 'post-industrial society' gestured towards the dawning of the new society that is technocratic and programmed, and an economy in which knowledge

<sup>&</sup>lt;sup>13</sup> The prefix post- is an indicator of time – a period different from and following the one that preceded it. As a descriptive and conceptual category, it illuminates the change with old structure/system as reference point (structure of industrial capitalism). However, the term 'post-industrial' economy does not offer much purchase to characterize the precise nature of the emergent structure.

becomes central to the production process. Bell's work (1973), following Touraine's, emphasized technology as a creator of new values and the organizational innovation of the 'corporation' in the new service-oriented and information led economy. Although Bell identifies information as one of the important features of post-industrial society, the term does not have the same meaning that it has acquired in recent discussions. Harvey (1989), outlining the conditions of 'postmodernity', discusses 'time-space compression' due to advances in technology, mainly transport and communication, which he argues have instituted radical changes in the ways in which capital operates, controls labour, and accumulates profit. He recognizes and highlights the role of technological infrastructure in this transformation. Although these scholars discuss post-industrial society as the 'information age', for them the novelty that the term 'information' suggests primarily lies in the organization of production - which derives value from knowledge and innovation. The term 'information' in this stream of scholarship does not refer to ICTs. However, the same terms today signify intricate and wide-reaching digital and communication infrastructures. In the following sections I give a brief overview of this turn in scholarship since the 1990s.

Scholars have documented the socioeconomic transformations that have been fuelled by the development and spread of new information and communication technologies. Theorists such as Negroponte tried to identify the precise features of technology induced economic changes. Negroponte (1995) distinguishes the 'post-information age' from 'post-industrial information economy' which is still an economy of scale, embedded in mass production in spite of transcending the limits of time and space. Information (defined as a product of computing technologies) travels and circulates through communication networks, overcoming the constraints of time and space that restrained the expansion of capitalism in the industrial age. In this context, manufacturing and services undergo a clear separation, with the latter not only becoming a separate sector of economy but also one that is managed in parts across space. In the post-information age, according to Negroponte, 'the economies of scale' mediated by digital technologies undergo a very important shift making possible customized personal service that caters to each individual's tastes and preferences in each product. Mass manufacturing is replaced by order-based production and catering to specific individual and group interests already collected, processed by a host of digital technologies connected to communication networks. He theorizes this condition as being 'digital'.

In the work of Castells (2004) and other sociologists, one can see further emphasis on new technological infrastructure, especially the Internet. Castells elaborates the idea of a network society, defined as a 'society whose social structure is made of networks powered by micro-electronics based information and communication technologies' (Castells 2004: 3). He argues that information technologies have played a key role at all points in history in structuring societies. But he emphasizes a specific kind of information technology unique to this age — micro-electronics-based information technology combined with communication technologies. The combination, he argues, has resulted in a completely different technological paradigm which he terms 'informationalism'. <sup>14</sup> Castells points out that informationalism does not supersede industrialism, rather it subsumes it. Castells' broader definition of information technologies historicizes the relation that different information technologies (such as print) have always shared with economy and society and highlights the specific character of IT as we understand today.

If Castells theorizes at a macro-level encompassing all sorts of information technologies, Benkler (2006) elaborates the functioning of networks and argues that 'networked information economy' replaces 'industrial information economy'. Focusing on non-rival media goods (newspaper, radio and TV content), he shows how social production on networks transforms markets as digital technologies and the attendant processes transform these goods. Martin's (1978) earlier work on the 'wired society' gestures to the networked quality of such technology driven transformation, but it was Benkler (2006) who developed this idea more fully. Benkler limits himself to the idea of information defined as media content in his book. What is most insightful is how he provides an inventory of new objects particular to the new economy (such as media goods) and gives comprehensive accounts of processes that have emerged in this context - dynamic peer production, cooperative and coordinated action. He emphasizes non-proprietary and non-market strategies which have redefined how information is produced in networked society.

<sup>&</sup>lt;sup>14</sup> 'Informationalism' is not the same as the concept of 'information' employed by later theorists (Fuchs 2010; Arvidsson and Colleoni 2012) to describe an economy embedded in computing and Internet technologies alone.

In recent literature, clear distinctions are made between different but linked concepts such as knowledge economy, information economy, internet economy and digital economy. Knowledge economy is an umbrella term used to describe broad changes in the post-industrial economy of the west since 1970s, as capital is able to derive industrial value from a specific kind of knowledge – science and technological innovations (Rooney et al. 2005). The term also underlines the shift to the services sector (particularly information services) in the economy. In this literature, we often see the term information used interchangeably with knowledge (Machlup 1984; Drahos and Braithwaite 2002; Fuchs 2009, 2010). However, more recent studies make a distinction between information and knowledge with the latter possessing an extra cognitive element that is not as easy to reproduce as information which can be just copied multiple times with a minimal cost (Foray 2004).

The advent of the Internet added an additional layer to these discussions on economy. OECD Seoul Declaration (2013) includes the 'full range of economic, social, and cultural activities supported by the Internet and related information and communication technologies' (2013: 15) in its definition of Internet economy. Indeed, the entire business sector has reinvented itself on the infrastructure provided by the Internet. E-business and e-commerce are synonymously used for the Internet economy (Sukhodolov *et al.* 2018). Of late the term 'digital economy' is being used to broadly describe the economy which encompasses all the above aspects – information, knowledge, and the Internet. It characterizes the entire spectrum of information goods, services, social network based-businesses including exchange platforms on the Internet, e-business (Schmid 2001). Digital economy is defined as 'an economy based on the digitization of information and the respective information and communication infrastructure' (Zimmermann and Dieter 2000: 729).

Writing produced by internet practitioners, business gurus, entrepreneurs, and CEOs of major companies have been equally useful for the insights they provide into the market and industry perspective of the changing economy. Many of these books use digital economy as a rubric to discuss different kinds of information technology-based enterprises that have emerged since the beginning of the 21<sup>st</sup> century. They also speculate on the kind of enterprises which may spring up in the near future and try to anticipate

the market scenario for the coming decade. Some of these predictions are really helpful for social theorization and have academic value even though they do not pass the test of academic rigour. In this thesis I have particularly relied on the insights of business guru Don Tapscott (1999) and Google CEO Eric Schmidt (2013) to understand how the industry identifies opportunities for value extraction and the various strategies they follow to realize it. I elaborate on this further in the next section. Some of the futuristic writings on popular culture have also given terms of theoretical significance. <sup>15</sup> I have adopted the term 'digital capitalism' to discuss specific aspects of media industries and the changes attending them. The choice of the term 'digital' over others offers leverage to cover the entire gamut of user and market exchanges including the informal and the offline.

#### Capitalist accumulation and value generation with digital media technologies

Early scholarship on capitalism, especially the industrial form of capitalism, mostly understood capitalist accumulation as an outcome of production, as in the classic work of Marx (1867). The Marxist theory of value differentiates between use value and exchange value and focuses on labour as the main source of value. Rey and Ritzer (2012) argue that production and consumption have continued to be treated separately because of the predominant influence of Marxist thought on social theory. They note that the Marxist theory of capitalism is married by productivist bias, with insufficient attention paid to other economic processes. But within the Marxist tradition, there have been efforts to expand the theory of value, especially with the progress of capitalism.

Postmodern theorists have tried to bridge the gap by looking closely at consumption, recognizing the expansion of the domain of commodities and the key role of advertising in the period of late capitalism. For example, Baudrillard's commentary on the consumer society (1970) and his work on simulacrum and simulacra (1981), and Jameson's work on late capitalism (1984), discuss value not just in terms of use but also signs. Baudrillard

<sup>&</sup>lt;sup>15</sup> Alvin Toffler's (1980) term 'prosumer' deserves particular mention in this context, as it first pointed to the blurred boundaries between the economic processes of production and consumption characteristic of some economic activities carried out through the Internet.

<sup>&</sup>lt;sup>16</sup> Apart from labour, Marx also discusses other forms of value of which rent based extraction is relevant to some of the arguments I elaborate in Chapter 5.

(1970) takes up Veblen's (1899) theory of the symbolic value of consumption in perpetuating social distinctions and extends it to the context of late capitalism. He also provides a critique of the emphasis on production in Marxist theory (Baudrillard 1975), arguing that use-value is not the value that is sought after in the consumption of many commodities; neither is consumption a passive process limited to use and exchange values. According to him, consumption is not an individual process, despite its objective to atomize and produce social difference<sup>17</sup> - as evident in the terms associated with it such as fashion, taste, and so on). The social hierarchy that consumption produces through objects takes it away from not so 'real' human needs which are socially produced by the capital. He uses advertising to illustrate this point and explores the commercial logic inherent in the relationship between advertising and entertainment goods. Advertisements are offered for free in order to create demand and desire for objects advertised, thus making art serve the capital. Jameson (1984) extends this idea to a range of commodities including pop and media culture.

These insights drawn from the work of Baurdrillard and Jameson help us to understand the basic nature of media commodities, although they do not engage with the element of digitality. The selling of the media content on digital platforms is very similar to the way advertisements operate with respect to entertainment goods. I elaborate more on how the extra element of 'digital' accelerates and diversifies the process of value extraction from media commodities in Chapter 5. Here, I only focus on the literature that views consumption as an avenue for generation of value.

<sup>&</sup>lt;sup>17</sup> Like postmodern social theories of consumption, anthropological and sociological approaches to consumption have tried to grapple with the apparent irrationality of consumption (which became especially conspicuous with the rise of consumerism), by focusing on the meanings associated with consumption and their role in social processes. Douglas and Isherwood (1979) challenged the economic definition of consumption, contesting its reduction to utility and rational choice by consumers in response to the volatilities of demand and supply. They argue that consumption is closely related to the communication of positions in the social world, and that it plays a central role in the construction of social relations. Miller (1995) comments on the reduction of consumption by economic theory to an abstraction couched in the language of aggregate demand.

These studies have shown the different kinds of values that are created by the processes of production and consumption. In the industrial form of capitalism, value was generated primarily through the exploitation of labour, thus the process of production was the focus of theoretical work. However, technological innovations opened up new avenues for value generation in the late capitalist phase, and the domain of commodities significantly expanded to include non-material goods. With the increased production and circulation of non-material goods such as media and entertainment commodities, the focus shifted to understanding other forms of value that are apparently non-material or intangible, or non-utilitarian. Hence it was no longer sufficient to study the process of production alone but attention shifted to representations of commodities and the process of consumption and how it produces value.

#### Digital variant of capitalism and distribution of information goods

We know from classical Marxist theory that capitalism is characterized by a quest or necessity for constant accumulation, especially through the creation and conquest of new markets. This is the inherent logic of capitalism (Marx 1867). The point of difference in each stage of capitalism is in how this is achieved, and these differences characterize the variants and phases of capitalism. With the onset of digital capitalism, it appears as if both production and consumption cannot exhaust the avenues of value generation, as most of the media goods allow the possibility of endless proliferation and circulation (outside the circuit of accumulation). Capital has to work around this possibility to generate value. In this section I discuss some theoretical work which has thrown light on the value generating mechanisms of capital in the digital era.

Market and management studies have been at the forefront of studying new forms of value creation with respect to e-business and e-commerce. Some studies explain the functioning of existing platforms, while others are predictive and suggest future possibilities with the emerging digital infrastructure. Tapscott's *Creating Value in the Network Economy* (1999), for instance, focuses on the changing nature of value with respect to assets which are primarily intellectual. Underlining the change from 'integrated corporation' to distributed creation of value, Tapscott sees the Internet as a new infrastructure which disaggregates the production process. This development, he argues, results in the fragmentation of the value chain of any firm with processes dispersed across networks, creating new opportunities for business at each point. He also mentions

the counter process of reaggregation of the value chain, again constituting players and services on the Internet. These twin movements happen simultaneously, opening up possibilities for personalized delivery of services for customers. The Internet functions as a market infrastructure and the value chain is both assembled and dissembled within this infrastructure. Tapscott's argument about the minute fragmentation of the value chain, aggregation and reaggregation are useful in understanding the functioning of media industries.

Ng's work (2014) on new markets in the digital economy focuses on the music industry and its transformation by digitization. She highlights the shifts that occurred with respect to ownership and property and the redefinition of contexts by the industry to create values in new ways. She argues that what is increasingly being sold is the 'use' of products in specific contexts without handing over the ownership of the product itself to consumers. She demonstrates this in the case of music consumers, who have transitioned from buying CDs and DVDs to buying access to music providers such as iTunes accounts which have a fixed subscription amount, which enables them to access music in various contexts across devices. It is no longer necessary for consumers own a music album in a physical media form in order to access the product. Ng notes that with digitization a transition has occurred in the logic that was centred on goods to the one that focuses on providing services.

There has been a noticeable shift to subscription-based selling of digitized media content as the Internet has created new opportunities for distribution of content. Users are allowed subscription to an ever-expanding range of content. Lotz (2017) comments on this aspect in her recently book on portals and Internet distributed television, where she observes that television distribution is undergoing a fundamental change from time scheduled broadcast to archival broadcast (e.g., Netflix, where the content is accessed from the collection whenever the viewer desires to watch it), which radically challenges our understanding of television as a medium. Thus, innovative business strategies have been forged in the domain of distribution, or the ways in which a commodity can reach a consumer.

Following the trend set by these recent studies, it is useful to look beyond processes of consumption or production in order to understand the myriad possibilities for creation

of value when capital opens up to the digital. It is important to understand the potential of new infrastructure to streamline consumer activities in innovative ways and to extract value and generate profit. More than ever before, it is necessary to study the processes of production, distribution and consumption as a composite. Never before in the history of capitalism have these processes been connected so strongly.

In the contemporary form of capitalism, especially with respect to media and information goods, capital appears to chase consumption by endlessly reinventing in the sphere of distribution. In order to understand multimedia consumption in the context of digital economy, I have tried to observe how 'value' is generated through various interactions amongst users and in their interaction with market. If I had not reduced the process under observation to this simple and basic unit, it would have been hard to overcome the theoretical and conceptual baggage of terms such as goods, commodities, information.<sup>18</sup> Tracing and describing various points at which value is generated helped me map the sociality of the phenomenon and work out the specific connections between objects and users. in the literature, social theorists have identified different sources of value generation with different phases of capitalism. Theorizations about socio-economic changes, since the 1960s, point to a growing academic engagement with the question of technology. Theorizing the various ways in which technology generates value becomes essential if we have to understand how capital operates in the realm of the digital. My preliminary observations also revealed the importance of distribution as a key avenue for creation of value, especially with reference to information goods.

Information goods are non-rival commodities (Soderberg 2015), with zero or minimal costs of reproduction (as innumerable copies can be produced without any additional expenditure). This feature is further compounded by the availability of copying technologies and low-priced infrastructure (such as in the form of mobile phones) with almost every other user, which formidably challenges generation of profit by capital. Commercial and market players on the web and social media platforms selling information goods have to inevitably wrestle with users who not only have access to them through multiple means but also possess technologies capable of producing any

<sup>&</sup>lt;sup>18</sup> My readings in economic anthropology in particular (Appadurai 1986; Kopytoff 1986) helped me to identify the most basic unit that is common to primitive as well as complex economies.

number of copies of those goods. The existing scholarship has to yet adequately explain how capital operates in face of this challenging and competitive environment which also presents capital with new opportunities.

Scholars have argued that we have not sufficiently interrogated the intricate functioning of the emergent ICT enabled business models and strategies (Fraysse and O'Neil 2015). Some of the latest literature has focused mainly on production and consumption and the blurring of the boundaries between the two processes on web platforms (Ritzer and Jurgenson 2010; Fisher 2015; Pauwels 2015), and on the economic processes attending other digital objects such as Free and Open Source Software (Kelty 2008). However, in this literature little attention is paid to the processes of distribution and circulation which are increasingly becoming central to the entire edifice of digital economy and its spread. This is the research gap that I try to address in Chapter 5. Some work within management studies (discussed above) are mindful of this gap and have attempted to understand how business strategies have changed with the arrival of the digital infrastructure. This thesis is an attempt to build on such insights and provide an account multimedia consumption as perceived by market players.

Some pertinent questions that emerge from this discussion of the literature include: What value does each act of consumption produce not for the consumer herself,<sup>19</sup> but for the one who is producing, selling or circulating the commodity or service? What is in consumption for capitalism in its digital variant when the seller of the commodity is not always the producer? How does capital contend with the situation wherein the consumer already has access to the commodity that is being sold?

\*\*\*

<sup>-</sup>

<sup>&</sup>lt;sup>19</sup> Cf. Baudrillard's (1970) observation that even leisure time in tourist destinations produces value for the consumer, who is simply not wasting time but producing the 'value of status' for himself. Baudrillard's idea is that conspicuous waste is not just waste and thus dysfunctional, but wasteful spending and consumption have a very important function to play in society – that of producing status and as a marker of privilege).

In this chapter I have elaborated on the questions, discussions and debates informing the arguments of this thesis. Each of the three sections sets the background for the corresponding discussions that follow in the next chapters. Literature specific to the arguments of these chapters will be elaborated further in those specific chapters. This review is more of a prelude that sets the stage for the main arguments to follow. The next chapter describes the users who are the focus of this thesis, their media practices and maps the sociality in which those practices are embedded.

# Chapter 3

#### THE DIGITALLY MARGINALIZED

In this chapter I discuss the use of mobile phones within specific urban milieus of Bangalore. I sketch the background against which these forms of mobile media use occur, and document a particular category of users who I characterize as the digitally marginalized – consumers who, I argue, have been marginal to the digital universe until recently. I give an overview of who these 'marginal users' in Bangalore are, and how they use mobile phones as a digital multimedia technology as they go about their everyday lives. I present a picture of their experience of mobile phones as witnessed on streets and in markets and other public places. I do not claim to give an exhaustive account of phone usage or media consumption by such users; instead, the chapter provides just a glimpse into their media practices, particularly multimedia consumption – their most common and popular use. The objective of this chapter is to describe the forms of sociality underlying such media practices and to unravel their meanings in relation to specific changes in the public media infrastructure of the city. These practices are not confined to Bangalore but are responses to larger changes that Indian cities in general are witnessing.

The experience of work in the city is accompanied by mobile phones for the workers discussed in this chapter. I characterize such users as 'digitally marginalized' because they contrast with tech-savvy, English educated and middle-class users, who have had better access and exposure to these technologies (and to the Internet) through several kinds of devices. These users are neophytes because they are engaging with the digital medium for the first time, through mobile phones. In this sense, they have not yet exhausted the entire spectrum of possibilities of the digital, and they lack many of the material and immaterial resources needed to make full use of the potential of the digital. This category of users is not marginal in terms of numbers or their importance to the emergent media industries (which I elaborate in the following chapters). But, as mentioned in the previous chapter, the digital marginality of these users largely coincides with their social marginality. By deploying the category of the 'digitally marginalized', my intention is to

emphasize this difference and their unequal status in relation to the more empowered users. The exploitative work conditions under which such users function also necessitate their use of media devices in particular ways.

As indicated in the previous chapters, I am sceptical about celebratory accounts of the social and economic benefits universal access and digital inclusion via mobile phones, and I do not view these users as needing help to use these technologies for specific ends as endorsed by the state or corporate actors (as ideal targets of development projects). I believe that technology and its adoption should have relevance to the specific social contexts of users in order for it to be meaningful, and any externally imposed agenda 'fails' because of its irrelevance to users and their actual and immediate needs. In this regard, I am in agreement with the technology for development agenda only in terms of the characterization of such users (as having unequal access to technology), but disagree with the interventionist measures they suggest to produce particular outcomes that are assumed to be positive for the digitally deprived. Therefore, the effort in this chapter is to show the actual media use and practice as it unravels in the life and work contexts of the users I term as 'the digitally marginalized'.

# The Urban Service Economy: Work and Media

The service economy has witnessed a rapid expansion in almost all Indian cities since the 2000s, particularly in domains such as retail, hospitality, transport, security services, and so on.<sup>20</sup> Barring a few studies (Ramaswamy and Agarwal 2012; RoyChowdhury *et al.* 2013), Although there is a substantial literature on the urban informal sector (which includes self-employed occupations such as street vending and casual workers in

content/uploads/2018/11/State of Working India 2018.pdf.

<sup>&</sup>lt;sup>20</sup> A recent State of Working India Report (2018), published under the lead authorship of Amit Basole, Centre for Sustainable Employment, Azim Premji University, classifies all of service sector in India into three major categories – surplus sector, social sector, and new service economy. While most of the unorganized sector including hotel, transport, domestic work, and petty retail trade is classified as 'surplus sector', security services are clubbed with IT and ITES and classified as 'new service economy' (2018: 83). For more information on this report, visit, <a href="https://cse.azimpremjiuniversity.edu.in/wp-">https://cse.azimpremjiuniversity.edu.in/wp-</a>

construction, domestic service, and so on), very little has been written about those who have entered newer service occupations such as security services and Uber drivers. These workers may have recently migrated to the city in search of work, or they may be long-time residents of the city who now seek low-end employment in the burgeoning service sector — especially with the demise of industrial employment. Here I point to the importance of studying the labour and lives of workers in the growing urban service economy, such as security guards, drivers and hospitality workers, housekeeping staff, and domestic help—jobs that straddle the conventional divide of 'formal' and 'informal'—as well as more traditional informal sector workers such as street vendors. Due to the peculiar mixture of an 'organized' corporate setting and informal labour in much of this sector, <sup>21</sup> it is difficult to document and study the labour force or working conditions in the service economy — yet such workers are very conspicuous.

Bangalore has gained a reputation as one of the most technologically advanced cities in India. Historically, it has housed major science and technology industries and institutions of India, and the city played a very significant role in shaping the technological scenario after independence (Madon 1997; Nair 2005; Pani *et al.* 2010). The emergence of the software outsourcing industry in the 1990s further bolstered this image, as Bangalore became known as the 'Silicon Valley of India'. Recent academic literature on the city (in contrast to older accounts) is indicative of this shift, with the focus on the burgeoning IT industry (Heitzman 2004; Upadhya and Vasavi 2008; Upadhya 2016; Mankekar and Gupta 2017). While these studies have documented the emergence of new forms of technology-mediated labour such as in call centres and software companies, they do not exhaust the entire range of technology use – in the context of work as well as 'leisure'. Addressing this lacuna, in this chapter, I sketch an altogether different technological universe in the city which revolves around mobile phones. In doing so, I shift focus away from tech-savvy and middle-class IT workers and other middle-class professionals, and

<sup>&</sup>lt;sup>21</sup> Gooptu's (2013) work on security guards offers insights on the nature of work in this sector which is formalized and institutionalized in terms of training, recruitment and organization, while at the same time is very insecure and informal in terms of employer and employee relations. The increasing precarity of labour (use of contract workers, lack of job security and benefits, etc) together with the growing corporatization of certain sectors and the decline of industry is a widely noted feature of India's post-liberalization economy.

direct attention to economically and technologically marginalized people. Below, I provide a brief overview of the nature of employment and workforces in several expanding domains of the service economy and sketch the media practices of those workers.

Since the emergence of the IT industry in the 1990s, the city of Bangalore has been swept by radical changes that are a frequent cause of worry to those invested in its future. Long-time residents and activists routinely complain that Bangalore is transforming beyond recognition due to unsustainable growth and urbanization. Significant among such changes is the increasing diversity and heterogeneity of the population, with migrants coming to the city from various regions of India to fill the rising demand for labour in particular sectors. Bangalore is not just a popular destination for educated youth seeking jobs in the IT-ITES industry, but also attracts a substantial number of less skilled workers whose services and labour are indispensable to the smooth daily functioning of the city and its many middle-class and affluent residents and corporate offices. Transport, security services, hospitality, retail, and housekeeping are some of the growing industries that have attracted migrants from outside the city. The city also accommodates an older informal economy consisting of numerous small vendors who sell all kinds of wares, in markets and on the street, as well as self-employed drivers of taxi and auto-rickshaws, domestic workers, and so on. The city has long attracted people from rural areas in search of such livelihood opportunities, and the influx of migrants who now dominate some sectors of the new service economy such as security services, can perhaps be seen as another phase of this pattern.

The work conditions of people employed in the service sector have given rise to certain media practices, reinforced by the arrival of mobile phones. In the following sections, I trace this new pattern of multimedia consumption against the background of the work life of such users in Bangalore. The chapter is organized around the kinds of work that my respondents were engaged in, because I found that the pattern of usage tends to vary according to the type of occupation. These variations, more than emphasize differences in media practice, highlight the work and life contexts within which mobile phones unfold as a media form. The practices that are discussed in each section are not limited to the particular category of worker, and a combination of such practices can be found across the various user groups described in this chapter and others. But I provide a

general description of each category of worker to point out the correspondence between media use and work. Moreover, this is not an exhaustive account of how these workers use their phones while at work and beyond; rather, I only provide a glimpse into their media practices, particularly multimedia consumption – their most common use of mobile phones.<sup>22</sup>

## **Transport workers**

The transport network in Bangalore has widened beyond the earlier scenario dominated by public and private bus and taxi operators, to meet the growing demands of ever-expanding population. Although connecting most parts of the city, Bangalore Metropolitan Transport Corporation (BMTC, the public sector transport service) leaves room for many private operators to thrive – particularly auto-rickshaws. Bangalore is slowly transforming into a city with an active night life, but it lacks public transport facilities in the night. While state operated BMTC buses stop plying at 10 p.m., private transport services such as auto-rickshaws operate throughout the night. Auto-rickshaw drivers thus form an important segment of the transportation workforce in Bangalore.

Taxi as a common mode of transport is relatively a new phenomenon in Bangalore, unlike in other cities such as Mumbai or Delhi which always had large networks of taxis even before the advent of cab aggregator companies. But the transport system in Bangalore has significantly changed in recent years with the entry of taxi services operating on digital platforms such as Ola and Uber, which have made taxis cheaper and more popular. Various kinds of people have been drawn to the city by this phenomenon to take up driving as a full-time or part-time occupation, because of the attraction of potentially high earnings. However, in India, platform-based transport services do not represent a 'gig economy' as in the US and elsewhere (Friedman 2014; Dokko *et al.* 2015; Donovan *et al.* 2016). Instead, most taxi drivers who work for Ola and Uber are full time drivers, and so are in a semi-employment relationship with the company. Often they take loans from these aggregator companies to purchase their

<sup>&</sup>lt;sup>22</sup> I have briefly discussed these workers and their mobile media practices in Rashmi (2017).

<sup>&</sup>lt;sup>23</sup> Not much has been written about this development in the city or the labour conditions of such services, but see Surie and Koduganti (2016), Surie (2017).

vehicles, and then have to work overtime to repay the loans. Sometimes two drivers in the same family take turns to drive throughout the day and night to meet their day-to-day expenses and repay the outstanding loan to the company, which is paid at the end of every month in installments.

Taxi fares for travel within the city have reduced after companies such as Ola and Uber have appeared on the scene, making the field very competitive for auto-rickshaw drivers. Because of this competition, working hours for both taxi and auto-rickshaw drivers have been stretched, occupying about two-thirds of their day (according to my interviews with drivers). This competitive relationship between taxi and auto-rickshaw drivers has been further deepened, as many auto-rickshaw drivers have begun working for app-based companies. Some auto rickshaw drivers work only during the night, after 10 p.m., when they can charge higher rates. Drivers plying the streets of Bangalore close to pubs, bus and railway stations and other spaces that are alive during the night have better earnings than those who work during the day. They make more money for shorter distances, which makes this shift profitable (except for the inconvenience of losing sleep at night). While they may not get many passengers at night, the one or two passengers they get will be profitable because they are usually for long distance destinations. The rest of the time, they wait in the silent and still hours of the night. Phones play an important role during these long hours of inactivity.

#### Auto-rickshaw drivers

I met Naveen (name changed) early in the morning for a conversation in his autorickshaw. Riding with him to the railway station, I learnt that he was on night shift that day, and that I was his last passenger before he finished his shift. A young man in his early twenties, he was brought up in Bangalore. Since he was not interested in continuing his education beyond the pre-university (11<sup>th</sup> and 12<sup>th</sup>) level, his family bought him an auto-rickshaw by taking a loan. His parents were afraid that he will become a liability if he stays idle at home. Naveen works very hard, and wants to prove to his family that he is not a burden. Thus, he mostly drives at night, when he can charge double or thrice the fare against what is legally permissible during the day. He had sustained that work pace for nearly three years by the time I met him.

A jovial young man, Naveen sings Kannada movie songs as he drives, and discusses songs with passengers if they know Kannada. He is constantly on what he calls as his 'mobile radio channel' – his mobile phone connected to speakers from which he plays songs as he goes around the city. His approach towards his passengers makes it difficult for them to stay indifferent towards him for a long time. Good at small talk, he is a good source of entertainment for them. His relationship with his mobile phone demonstrates how much auto drivers like Naveen depend on their phones to keep them company, especially when working long hours:

I'm a mobile phone addict; most of my money goes into maintaining this phone. I have spent close to two lakhs on phones so far. I want a nice phone because I work during night time. Whenever there are no passengers, it is difficult to while away the time. I watch films and other videos on phone to fill the night. Nights are long when there are no passengers. I have to keep myself awake as silence of the night puts me to sleep after a while. I frequently change phones. I want to have the best in the price range I can afford. None of it goes waste. I give away my old phones to others in the family, especially to my mother, younger brothers and sisters so that they can also have 'fun'.

- 'Naveen', an auto-rickshaw driver who owns Samsung Note 2

Waiting time between passengers and time during the ride, especially during late nights and early mornings, is idle time for auto-rickshaw drivers like Naveen. Invariably their phones are used to occupy this time, which is spent listening to and watching songs, videos, comedy clips, privately or in groups when several drivers are waiting at auto stands. Drivers who work during night hours said that they will 'go crazy' if they do not have a device similar to the mobile phone. The city during night time has little activity, and there are few drivers to converse with while they wait at auto-rickshaw stands or at other locations where they might pick up passengers. Getting passengers at night requires going to streets and areas where they are likely to be found, which does not allow them to park in one place for a long time. They have to keep roaming the streets and also wait at locations where they usually find passengers. Without mobile phones, music and video on that small screen, drivers complain that 'it is too lonely and boring to work' in the silent hours of night. Some drivers mentioned that they sacrifice sleep and the comfort of home for the money they make during night hours, and that there must be something worthwhile to compensate for all 'the things that they miss'. There is an additional

challenge of fighting sleep as they wait for passengers. They need to engage in some activity; as one driver put it, 'Sleep will get the better of me if I do not do anything, but simply wait'. Their mobile phones keep them occupied in such circumstances.

Similarly, auto-rickshaw drivers who drive during the day do not have many passengers in the afternoons, between 2.00 and 4.00 p.m. At that time, they can be seen sitting comfortably in their vehicles parked under some tree or in an upscale residential locale, engrossed in their mobile phones. One should try speaking to them during this time to understand how serious this engagement is with their phones. One gets an indifferent response as if they are annoyed to be interrupted during their phone time. It is almost as if one is intruding into a very private time. At such times they may reluctantly agree to take passengers, but often the request is met with outright rejection. Afternoons are the time when they relax and can be seen watching movie or video clips or regional film songs downloaded from YouTube.

Phones are no less significant at other times in the day. Mobile phones are also the objects around which rickshaw drivers congregate at stands, especially during afternoons when there are few passengers. Parking their rickshaws in a long line, they come together in two or three groups, chatting about the songs and clips they have on their SD cards (see Figure 1) and telling each other about where they got such content. They teach each other the specific functionalities of phones, especially about downloading, copying, and sharing content. Users with old feature phones and outdated smart phones switch on Bluetooth and share songs and video clips, while those with the latest smart phones use ShareIt<sup>24</sup> and other means of transferring the media content. If one driver has a song that interests others in the group, they use an audio jack (see Figure 2) and connect the mobile phone to an amplifier (usually cheap Chinese manufactured MP3 players (see Figure 3) that come with a USB port, radio and in-built speakers), so that the whole group can listen to the song together. I observed this mode of group media consumption on what is otherwise a very private device amongst all the categories of workers with

<sup>&</sup>lt;sup>24</sup> ShareIt is an Android phone app that allows people to transfer and share content in less time than Bluetooth or any other file transferring protocol. Unlike Bluetooth, the interface of the app is very simple and allows easy recognition of other devices. It does not require users to take complicated steps such as pairing or pairing with keys.

whom I interacted for this study. Similarly, an interesting video clip attracts collective attention, and drivers huddle together in the passenger seat and start watching a movie or a clip during their afternoon breaks. Passengers who approach during this time are usually sent away; else one driver may reluctantly leave the group to take the passenger, forced by the fellow workers to do his duty. Rajanna, a driver in his fifties, told me how he learnt to operate the phone and use its functionalities:

I've learnt how to copy songs from other phones at the stand. We have one or the other intelligent driver who knows about such tricks. Many young drivers are fairly educated. Some of them have gone to college. They take to driving as there is no employment, and when we park at stands we meet one or the other such young man who knows how to do things on this magic device [points to his phone]. I don't need to know how to use all apps on this phone; I'm only interested in those that keep me entertained. Games, songs, and funny video clips — that's the stuff I'm interested in.

- Rajanna, an auto rickshaw driver who usually waits at the auto-rickshaw stand of one the busy commercial roads of Bangalore



Figure 1. Micro-SD card used to store multimedia content on mobile phones



Figure 2. Audio jack connection cable to connect mobile phones to sound amplifier



Figure 3. Simple MP3 player with USB, FM radio, and an option for audio jack



Figure 4. Cheap USB micro-SD card readers which can be used as pen drives

Such audio and video players are inexpensive, starting from 500 Rupees (see Figure 3). The other accessories commonly used by drivers, such as non-branded thumb drives and USB SD card readers (see Figure 4) can also be bought cheaply on the streets from electronics accessories hawkers, or from mobile phone accessory shops. USB SD card readers are more popular than thumb drives as they function as thumb drives when SD cards are inserted into them. When not connected to MP3 players, SD cards are taken out and put back into mobile phones. But many users, especially taxi drivers, do not invest in such accessories and make do with simple audio jack connection cable to connect mobile phone to the MP3 players.<sup>25</sup>

71

<sup>&</sup>lt;sup>25</sup> Some users prefer not to connect mobile phones to speakers, especially those who work for companies such as Ola and Uber, because they keep receiving calls on their phones and connecting and disconnecting them from MP3 players is both cumbersome and bothersome. I

#### Taxi drivers

While most Ola and Uber drivers ferry passengers for short trips with some waiting time in between, drivers working for regular taxi services, private companies or households often have long waiting periods throughout the day. Although such drivers must be on call for the entire shift, they very often have only a few hours of driving throughout the day. The only company, they usually have during this waiting time, is their mobile phones. Lokesh, a taxi driver I met, told me about the films that he watches while waiting. An avid fan of Kannada cinema, he sees almost all newly released movies, and has a particular taste for old Kannada action films. He visits DVD shops and pays a small price to buy movies that are not available on YouTube and gets them transferred to his phone memory card. He downloads the videos available on YouTube for offline viewing.<sup>26</sup> On days when the waiting time is very long, he finishes more than two films. He is always on the lookout for new films whenever he meets his friends and families. He says that young college students in his family, in particular, supply and renew his stock regularly with new content, as they are able to download films. He has bonded with the younger generation over this technology. His insatiable need for content makes him keep in constant touch with them. He also learns new skills, discovering various uses and tinkering with options on phone whenever he meets them. Gradually, Lokesh has moved from simple feature phones to complex smart phones. When he cannot find new content, he just watches the same films again. At the time of our interaction, he had bought three 2GB memory cards in the previous year, which he uses as his storage space. Once he has watched a film several times, sometimes to the point of knowing the dialogues by heart, he deletes them from his phone and adds new films from the phones of his friends or younger family members.

have also seen many taxi drivers use their old phones (which they do not use for receiving and making calls) exclusively to play music.

<sup>26</sup> During the research period, YouTube began to offer a 'save videos offline' option for users accessing YouTube with slow mobile Internet connections. The videos saved offline have a limited period of access, up to 30 days, after which the users must download them again if they want to watch offline. However, this feature is not provided for all videos, especially the very popular ones. YouTube constantly invents ways in which video viewing can be experienced by diverse sets of audiences. I elaborate on this feature in Chapter 5.

Like Lokesh, many users get content from multiple sources. Each of these links is developed socially over a period of time. Such meetings and encounters, whether it is with the owner of the DVD shop or a tech savvy college student in the family, are learning opportunities for these new users, who equip themselves with knowledge required to use phones in ways they find meaningful to their work and life contexts. I have witnessed their curiosity whenever they meet a new person who seems to have the kind of knowledge and content they are interested in. They ask several questions and demand practical demonstrations and would not leave the person until they have successfully learnt and experimented for themselves. These associations continue over time as such users keep going to the same people for technical help. It is a free learning space distributed across locations and among many people, which is directed by general curiosity and casual conversations. Such occasions for sharing knowledge are moments of great joy, both for the one teaching and the one learning.

#### **Bus drivers**

The practices of mobile phone use mentioned above are not exclusive to auto-rickshaw and taxi drivers, are also seen among bus drivers and conductors. It is common to find people listening to songs and watching movies played by bus drivers and conductors while on a long-distance journey. Working class and rural youth prefer travelling long distances in private-operator-owned buses because of music and films played during the journey. DVD and cassette players are an important part of the experience of travelling in private owned transport (particularly buses) in India. Popular films, even those just released in cinemas, are often procured through pirate means and played for the passengers in long-distance buses. In fact, for many people this is one of the main motives for choosing private buses over government transport. A few years ago, even installing a cassette player required investment, and sound amplifiers were not within the reach of everyone. Since the arrival of mobile phones and cheap MP3 players however, the cost of playing music on buses has become so cheap that it is individually affordable by drivers and conductors, who need not depend on the bus owners for their entertainment.

Until recently, government-run public transport did not have such amenities as they involve significant investment. A public bus driver explained:

Earlier we didn't have mobile phones, only had cassette players. The drivers who had cassette players in buses and autos were rare. We had them at home but not in buses and rickshaws. It was more a car thing. At home, we used to have cassette players and play the same cassettes over and again. Ever since mobile phones, we can listen to different kinds of songs while driving. I also have a small pen drive player with radio option installed in the bus I drive. I constantly visit mobile phone shops and get new songs. You can erase songs on the card and get new songs on the same one. I, and the conductor who works with me on the bus, have separate pen drives. We have different interests in songs. Driving in Bangalore traffic is a very boring job, and my phone helps reduce boredom. I connect my phone to speakers and sometimes directly play from the pen drive. Everyone travelling on the bus can also listen. I don't know whether they like what I play or not. I play it for myself, not for them.

#### - Ravi, A BMTC bus driver

The entertainment options inside the bus can now be manipulated by the driver and the conductor (who are regular staff on buses). Passengers, who are transient, have to accept the entertainment options chosen by drivers and conductors, or they may choose not to listen to it by shifting to their personalized music or video collection stored on their phones, plugging in their earphones and retreating into their own aural and visual bubble. Passengers who are unwilling or distracted listeners are common scene in public transport these days. Thus, the abundance of options has fundamentally changed when and how we experience entertainment.

From my conversations with bus drivers such as Ravi, I gathered that they spend more time listening rather than watching videos on phones, since they only have the auditory sensory channel free while driving. Compared to auto-rickshaw drivers and taxi drivers, their work hours are fixed and they have very little free time during those hours. Thilak, a conductor, emphasized the importance for him of being able to listen to something other than the loud horns and traffic noise outside from the streets, in order to reduce the stress that is part of manoeuvring through the congested and noisy streets of Bangalore:

This Bangalore traffic drives anyone mad. If you keep listening to it every day, then you will go deaf sooner or later. I want to listen to as much music as possible before I go

deaf. Music keeps me sane in this madness outside [points to a traffic jam on the Yelahanka route]. Look at the paradox; we need more sound to drive away the nonsense of the sound outside. Bangalore is becoming a noisy hell, and I have to work here. Government pays me and children need the city. Where can I go to escape this noisy hell? Music is my only saving grace every day.

- Thilak, a BMTC bus conductor

Bus drivers and conductors regularly pool in money to replenish their collection of songs, and to buy and maintain the equipment needed to play music on bus. They use multiple thumb drives and USB SD card readers to store music. They have a particular penchant for long playlists that last throughout their work shift, as they get bored listening to the same songs repeatedly. Unlike mass media forms such as radio and television which provide no options for the listeners/viewers to choose their own content, playlists accessed digitally through mobile phones make personalization of content possible along with a facility to access the inexhaustible supply of content on the move, without any constraints of time.

Catering to the electronic needs of such users, a host of hawkers selling electronic wares and accessories (audio jack extension cords, USB SD card readers, thumb drives, mobile phone chargers, ear phones, flip covers, and so on) can be seen near major traffic signal junctions and city squares, where there are often many buses and taxis waiting or passing through. Such cheap electronic accessories (mostly manufactured in China) are usually bought by drivers, conductors, and such other users who find it a waste of money to purchase branded data storage and transfer accessories.

#### Hotel and restaurant staff

Like the transportation sector, many hotels, mess facilities, cafes, and snack parlours in the city provide employment to local people as well as migrants, who work as cooks, serving staff and cleaners. Public food culture in Bangalore, excluding the high-end restaurants, is mostly characterized by Udupi 'darshinis' (fast food eating places, specializing in local dishes such as dosas), which have long offered quick meals and snacks at affordable prices. Since the 2000s, many hotels' and messes have sprung up offering regional cuisine—from North Karnataka, Andhra, Kerala, Bihar, Orissa, Punjab, the

Northeast, and others—to meet the demands of the heterogeneous population of the city. Like *darshinis*, such eateries offer food to workers at affordable prices, and regular clients can buy three meals a day for 100 Rupees or less, making them popular with people of all classes. The self-service option in these small hotels allow for the fast circulation of food and people, unlike restaurants which follow the usual hospitality practices (such as table service). They are also inexpensive for people who have no option but eat outside within a fixed budget.

Most young men who work in ordinary small hotels are migrants from small towns and villages of Karnataka and other states. Such establishments usually hire one or two 'boys' (as they are generally called) to cook, clean and serve customers. In some cases, a group of workers from the same town or neighbouring villages come to the city together and share accommodation. Workers in these eating places develop or retain a strong sense of community, which gets strengthened as they start living together. Often the group facilitates the arrival of new workers into the city by offering them a place to stay and introducing them to potential employers. This kind of shared living creates a social context unique to this category of migrant workers. Such workers are often given accommodation by the employers, in one or two rooms within the hotel (in rooms or a big hall on the terrace), or in another place outside but close to the hotel. Often a room is shared by more than five or six young men or boys,<sup>27</sup> and if it is a big hall almost all the staff lives there in the same place.

According to the information I could gather, many of these 'hotel boys' have worked in several different establishments. They often chose jobs on the basis of friendships or social connections, and workers change jobs frequently when attracted by better pay or living arrangements or follow their friends when they change jobs. New migrants who join the group are usually from the same villages as their friends or contacts in Bangalore. They are often school drop-outs who have no interest in continuing education back in their villages and home towns, so come to the city in search of employment. For a young

-

<sup>&</sup>lt;sup>27</sup> These workers are called 'hotel mani' in Kannada. Mani means young boy in the Dakshina Kannada dialect. These 'boys' are very useful for the employers as they are quick to run errands, fetch supplies, and deliver coffee and tea to nearby shops. They are also paid less compared to the older workers who cook and serve.

adolescent boy, it is comparatively easier to get a job in a small hotel. Moreover, acquaintance with the cook or another employee, or with the proprietor himself, is advantageous in securing both a job and accommodation. The groups I spoke to hailed from different villages of coastal Karnataka and worked for small hotel proprietors.

I visited two such groups of hotel staff working and living close to Gandhinagar and Sheshadripuram in the Majestic area of Bangalore. Majestic offers the first experience of urban life for many new migrants to the city. As one of the major commercial centres in Bangalore, it attracts a very diverse crowd due to its proximity to the city railway and bus stations. The huge movement of commuting and transit population in and around Majestic area (especially Gandhinagar) every day explains the density of hotels and lodging facilities available there, which also absorb most of the hotel staff discussed here. Over the years, Majestic has also developed into a major commercial hub for media goods. Gandhinagar, the most important space for the exhibition of Kannada films, was home to the city's important pirate markets from the 1970s to the 1990s. The famous National Market in the area was the hub for imported, unlicensed, smuggled electronic goods and perfumes from the 1970s. There are close to a dozen single screen cinema theatres in Gandhinagar, mainly catering to lower middle-class and working class people.<sup>28</sup>

#### **Community phones**

The employees of such 'hotels' (in the Majestic area) work and live in conditions that allow them to use their mobile phones extensively. These men and young boys live away from their families and usually do not have access to television in their work-cum-living spaces. They are film enthusiasts and spend most of their free time and weekly holidays

<sup>&</sup>lt;sup>28</sup> In spite of having a huge influx of people due to its proximity to Majestic, there are no multiplexes in Gandhinagar. Many malls have come up in this area over the last two decades but none has a multiplex, perhaps because of the strong presence and control of the area by Kannada single screen exhibition spaces. Kannada cinema aficionados, who are well aware of the developments in this area and its history over years, spoke about riots that have taken place if a cinema house in this area wanted to screen non-Kannada, especially Tamil or Telugu, movies. The area continues to be one of the major strongholds of Kannada film distribution and exhibition.

catching up with the latest films. Indeed, film viewing is their only entertainment outlet, living as migrants in the city with modest incomes. While they may go out to see movies, and may watch the same film several times at a nearby single screen theatre, going to the cinema is not a viable option on a regular basis due to budget constraints, despite the ubiquity of theatres offering affordable tickets. Thus, their everyday entertainment needs are met through mobile phones, and they have easy access to songs and videos of the movies from shops in the neighbourhood which cater to this market. In fact, as I elaborate in the next chapter, it is only in the Majestic area that I have seen shopkeepers putting up banners saying they 'download images, songs and videos'. Nowhere else in the city is the extra-legal content business advertised as explicitly as here. Cooks, hotel workers, and cleaners are regular customers at such shops, frequently buying pirated videos (downloaded from the Internet or copied from DVDs) of film songs that have just been released.

The daily work schedule of restaurant workers is such that they do not have much time left for leisure activities, except to gather together and enjoy some group entertainment. Mobile phones play a very significant role in such daily gatherings, during their off hours, as one server mentioned in a conversation:

We keep watching all kinds of videos on the phone whenever we get time off work. If one of our boys has interesting stuff, we take it from him. I maintain different memory cards for songs, videos and a separate one for other stuff that is not appropriate to watch in front of others. I keep exchanging videos with my friends. The rooms we stay in do not give us any options for entertainment and mobile phones entertain us."

- A hotel server living with six friends in a tiny room in Gandhinagar, Majestic area

Likewise, migrant cooks and cleaners who come from Bihar, Orissa, West Bengal, and other places into the city work in eateries across the city. These places have tight work routines, making it difficult for workers to leave the workplace. Cooks and cleaners have work in the mornings, afternoons and evenings, and they are expected to be at their workplace throughout the day to prepare three meals. They often live in their places of work, which convert into a living space once the shop is closed. Cooks and cleaners usually get considerable amount of time between meals, which is spent watching videos

or listening to music in their regional languages (in the group I met, these were Bihari, Bhojpuri, and Odia) as they cook. Mobile phones are a regular feature of the ensemble of rolling pins, *tawas*, *kadais* (huge cooking pots), and other kitchen equipment. Ramprasad Bihari, who works at a Bihari mess as the main cook, told me that his employer rarely allows him to go out during week days. Even on weekends, he is not given holiday as they are committed to providing food for students living in the neighbourhood for an advance monthly payment. His only source of entertainment is his mobile phone. He scouts the neighbourhood mobile phone shops for films and video clips, and a good collection helps him work through the week in front of hot pans and pots.

Such work conditions make mobile phones an indispensable part of the working lives of these employees. Many users in this category use multiple SD cards to store different kinds of content, choosing the ones appropriate to the situation. The subject of pornographic video first came up in conversations with hotel workers, as some of them use a separate memory card for storing pornographic content. They watch pornography when among friends and fellow workers, and only consume film music and other kinds of videos at work.

These workers spend a substantial part of their wages on films, film music, and pornographic videos, a pattern that I found to be common amongst almost all users of this category. When exchanging content, hotel workers usually swap phones (instead of swapping memory cards) for fear of the 'viruses' that cards may carry. For many hotel workers, mobile phones are not personalized devices – in the sense that they do not associate privacy with mobile phones, at least not in the way that mobile phones are usually assumed to be associated with private consumption practices.

These media consumption practices raise new questions about privacy, pleasure and the mobile phone screen. Mobile phones become devices which allow users to access each other's interiorities and intimate emotions and thoughts, as they share their sexual fantasies and taste in pornographic content with others.<sup>29</sup> Their practices seem very similar to the online practices of pornographic video consumption. While earlier the consumption of pornographic movies was a collective experience, whether it was

 $<sup>^{\</sup>rm 29}$  I owe this insight to a question posed by Lawrence Liang during a discussion.

accessed on a cinema screen or a video projector in an informal video parlour, the computer screen and the Internet have made watching videos a private process, but connect people to communities of users with similar interests through live chat rooms. The kind of privacy offered by the mobile phone screen is not privacy from the entire world around (in the form of an ocular and sonar bubble). Instead, it is privacy from being seen watching certain 'inappropriate' things by people with whom they are uncomfortable sharing such practices and desires. But what is evident from such consumption practices is that the mobile phone, for such users, is as much a collective and community device as it is an individual, private and personalized device.

## Security guards

Like hotels and mess facilities, security services are a growing source of employment in Bangalore and are increasing in scale with the establishment of ever more commercial, institutional and residential establishments in the city. People of all age groups have taken to this occupation, from young adults who are saving money for their education to older men who are no longer able to do jobs involving hard labour. Large residential, institutional, and commercial spaces hire security guards through agencies which bring migrants into the city, train and deploy them at their clients' establishments, whereas smaller commercial and residential complexes usually hire known individuals as watchmen. The vast majority of security personnel are migrants who are brought to the city from rural areas through organized security service providers, and they often return to their villages periodically to attend to agricultural activities. They usually migrate without their families and live in cramped shared accommodation (like hotel workers). Unlike transport services which require significant initial investment by the worker (in purchasing a vehicle and subsequent maintenance expenses), entry into a security job entails no investment from the worker. Security services have attracted workers from other parts of Karnataka, as well as distant places such as Orissa, Bihar and the Northeast,

The security guards who formed a part of this study came mainly from Orissa. The guards who I interviewed were mostly Sabri or Santhali, while some were from Bihar or

<sup>&</sup>lt;sup>30</sup> Sabri and Santhali are languages spoken by adivasi groups in the eastern and northern states of Bengal, Orissa, and Bihar.

West Bengal. Security guards from these regions are employed in large numbers by the many security agencies in Bangalore. Their work requires them to be on duty for 16 hours a day (two shifts with a break of eight hours in between). Their working hours, thus, will always include a few hours in the late evening or the entire night. The time between shifts is often the only break they have as they do not get weekly holidays regularly. Sometimes they exchange shifts with fellow workers and work a single shift of a longer duration if they want a break. Their work schedules are strictly monitored by their supervisors who assign them shifts depending on the availability of workers.

Many security guards are able to visit home only once a year when they get annual leave of 20 days. Workers, who require a longer break, quit the job and return to it after a while, depending on the circumstances at home. As they come from faraway places and interior parts of India, traveling home takes a long time, and they cannot afford to be away from work for longer without the risk of losing the job. A security guard told me it takes him 48 hours to reach his village – a 36-hour train ride to Bhubaneshwar and a 12-hour journey by road, catching three different buses to reach his village. Out of his 20 days of annual leave per year, almost a week is lost just in traveling home and returning to his workplace.

The work context of many security guards is alienating. Because of the nature of their work, they are generally not part of teams, but are isolated for most of the workday (especially when they work on night shifts). The only time they have to socialize or relax is when they get back to their crammed rooms or shacks (often provided by their employers) and meet other guards from their region. Since the guards (I interviewed) only have eight hours break from their work on a regular day, they also have to manage to get sleep during this break.

The work conditions of security guards distinguish them from other low-end service jobs (such as sales people and floor staff working in retail outlets at mall spaces), in the sense that they are not constantly monitored during work. Although the work hours are long and include night shifts, the job demands very little in terms of labour. This makes security one of the most idle yet trying of jobs in the new service economy (in terms of the patience and vigilance required). Unlike self-employed taxi and auto-rickshaw drivers, who enjoy complete autonomy with respect to time, mode and place of work, security

guards cannot choose where they are stationed, but a significant portion of their work hours is not directly supervised by an immediate superior. Their working hours are interspersed with long periods of idle time that is spent waiting, watching or doing nothing. The nature of the occupation very frequently compels them to occupy themselves with other activities unrelated to the work they are supposed to be doing, so that they can sustain themselves through the long hours of empty waiting that their work demands. In recent years smart phones have entered their lives, giving them much needed respite from the drudgery and boredom they are forced to endure. Mobile phones have become central to their mode of work, and multimedia consumption is the most common activity they depend on to sustain themselves through the empty time of work.

#### Away from home, and close to phone

In this context, it is not surprising that the use of mobile phones by security guards borders on addiction, as they spend quite a substantial sum of their earnings on phone subscriptions and content every month. Security guards I have met are very knowledgeable about various schemes (both talk time and data service schemes) offered by different telecom service providers, and often choose to subscribe to the most economical of packages on offer. Their everyday discussions often revolve around the schemes and discounts provided by different telecom companies such as Aircel and Tata Docomo.<sup>31</sup> They constantly update themselves about these schemes and packages and keep shifting between telecom service providers to make the most of the schemes available in the market. Most buy unlimited STD talk time packages (which started from 700 Rupees in 2015, when I was conducting fieldwork) so that they can speak to their family and friends whenever and for as long as they want. They also subscribe to limited data packs (both 2G and 3G),<sup>32</sup> depending on their technical knowledge and budget

\_

<sup>&</sup>lt;sup>31</sup> At the time of fieldwork, Reliance Jio, which came out with the cheapest subscription packages to attract precisely this kind of customers had not yet entered the market. When I started writing this thesis, Jio SIM cards were the most popular with some of these guards. However, when other telecom service providers also slashed call and data charges to compete with Reliance, they resorted to their old habit of weighing the best option available on offer.

<sup>&</sup>lt;sup>32</sup> Much of this scenario has changed over the last two years with the entry of 4G and bundled unlimited packages, which offer calling and data services at a price affordable to such users. Now,

constraints. Some spend a considerable amount of their money on buying popular movies and video clips from the mobile phone services shops.

For these migrant security guards, mobile phones are the only connection to their world back home and families. They are more knowledgeable about mobile phones than any other average worker in similar conditions. They often go to free Wi-Fi zones across city to download songs and videos on their phones. Several security guards told me that they watch at least two movies every night. Since their working conditions do not allow them to go to cinema halls, and the linguistic culture of Bangalore does not provide access to films in their regional languages, their only mode of access to films and film clips (downloaded as videos) in their own languages is through mobile phones. Many guards visit theatres to watch popular Bollywood movies (if they know Hindi). But most of the content they consume is downloaded directly from YouTube and other online platforms. Romantic album songs (especially in Santhali and Sabri) are widely circulated amongst these migrants after they are downloaded from the Internet. When they visit home, they return to the city with new albums which are not yet online and the latest films which they cannot get in a city like Bangalore.<sup>33</sup>

Security guards freely share content with one another – mostly through Bluetooth or by exchanging memory cards. Downloaded content (especially film videos) is bartered among friends. Since they subscribe to limited data packs and do not have regular access to free Wi-Fi hubs (a minority of guards do access Wi-Fi when they are off work), exchanging and sharing content is the only way they can replenish their supply. Most have moderately expensive branded smart phones (in the range of 6000 to 12,000 Rupees),<sup>34</sup> and they are constantly on the lookout for new kinds of content, trying

mobile data packs are almost on par with individual and personal broadband connections and subscriptions.

<sup>&</sup>lt;sup>33</sup> Odia, Sabri and Santhali music or films have little market in the city. This situation might change in the near future as this user base is expanding.

<sup>&</sup>lt;sup>34</sup> This echoes the recent market trend reported in many newspapers. Micromax overtook Samsung in market share for mobile phones in the range of USD 100, a Reuters report which I accessed during fieldwork. It mentions that the market for mobile phones in India in this range is rapidly expanding, with more people migrating to smart phones in the price range of USD 50-

various ways of sourcing it. Their hunger for new content is insatiable. They consume all kinds of video – films that go viral online, funny videos, HD videos of popular Bollywood songs, folk music, romantic albums, videos of regional and Bollywood films available on YouTube, and so on. Often they cannot afford to download the content they want from the Internet as they have limited economic resources, and many lack the technical skills required to download videos directly from online platforms, so they are dependent on their friends and fellow workers to supply them with new content at regular intervals. Younger security guards who are good at these skills often supply content to the older ones.

Content, once downloaded from the Internet, will multiply into copies or travel through memory cards among friends and colleagues. Since they have limited storage space and the nature of consumption is ephemeral and short-term, they cannot but circulate the videos they download. New content will always have a value that everyone in the group wants to extract, but a few will have control over it. Security guards told me how they often quarrel over a new video that somebody downloads but refuses to share. Others in the group may stop speaking to that individual until he agrees to share the particular video that is in demand. The routine practice of many guards, before settling into their work space during night shifts, is to check if they have enough videos on their phones to last the night. They get bored after watching the same video twice or thrice, so this process of downloading and hunting for and bartering content is constant for them.

In addition, many security guards have started using social networking apps on their phones. These apps are their way of sourcing amateur videos produced at home (such as of their children and family during special occasions). They spend their time looking at

100. However, there are no available data on sales of used smart phones, which appears to be very large in the informal markets. From my field observations, it appears that there is an increasing demand for used smart phones, and that informal and formal sector workers are the main buyers in this segment. The exact numbers and percentage might be difficult to determine as many shops which sell used phones also sell the new models, and the markets are not separate. See Reuters report, February 4, 2015: <a href="http://in.reuters.com/article/2015/02/04/micromax-india-sales-samsung-idINKBN0L808M20150204">http://in.reuters.com/article/2015/02/04/micromax-india-sales-samsung-idINKBN0L808M20150204</a>.

the videos of their children growing up without them back home – households that they belong to, but cannot reach whenever they want. WhatsApp usage for the circulation of such media is slowly becoming popular amongst this category of urban workers. In addition to sharing home videos, they also get access to their regional and cultural media content through the same modality.

Mobile phones are the only company for these solitary workers, and the videos and songs they consume through these devices are often the only form of leisure they can afford. Their lives revolve around phones, which become bridges connecting them to the world back home (from which they are physically distanced), and also to the world of work that they inhabit every day (from which they are culturally distanced). A guard I interviewed spoke about the importance of phones in his life:

Mobile phone is the only means for contacting home and family, without this I can't live. I don't know how we managed before they came. None of us remembers. There weren't as many jobs in the cities those days as there are now. I use the phone to call family members, and watch films and videos during night duty. Mobile phone spices up my otherwise dull life, it brings colour to life.

- An Oriya migrant security guard

#### Street vendors

It is not just the work conditions of security guards, hotel workers and drivers that are amenable to mobile phone use – other kinds of workers also exhibit the same pattern of media use. I have noticed such practices among street and market vendors, domestic workers, and others. Below, I provide a few vignettes which shed light on the media practices of such users.

Shivanna, a fruit vendor who parks his cart in one of the busiest streets of Bangalore, listens to songs on his Nokia phone (not a high-end smart phone but one of the basic Nokia models with a decent MP3 playback option, which must have cost him 4000-5000 Rupees). He comes to the city every day to sell fruits from a nearby village and returns in the evening. He listens to music whenever he is bored and does not have customers. As a fruit vendor occupying the pavement, he does not have customers to engage him all the

time (unlike big vendors inside the market complex nearby). Nor does he have to watch over his goods constantly as he neatly arranges them in a small open cart parked on the pavement, giving him a clear sight of his goods as well as passers-by. He sparingly uses his phone to listen to songs and watch videos to keep himself from dozing off during the afternoons, unlike a few of his friends who are addicted to consuming content. He gets songs from his friends via Bluetooth, or he goes to a nearby shop and buys them for a small price.

Another vegetable vendor who sits inside the main market area in Malleshwaram, spends his time listening to radio and playing games. He is constantly playing games on his mobile phone, and goes to mobile phone shops to load games for a price. Apart from games, he is passionate about devotional music and has a huge collection of such songs stored on many SD cards, which he has collected during his travel to different temple towns in and around Karnataka. Whenever he visits mobile phone shops he asks them to copy the songs from several CDs and DVDs to one of his memory cards. There are many users like him who have the habit of collecting a specific genre of music or video or albums by a particular artist. He spoke about the social importance of mobile phones in their everyday life at the market:

I don't have customers all the time, especially during office and college hours. Still I sit in the market for those who come now and then. Earlier we used to talk to other vendors and spend time, and on the days we could not, we would just sit and while away the time. Nowadays conversations happen over mobile phone songs and videos. In our group, one or the other will have some interesting stuff to watch or listen to.

- A vegetable vendor in Malleshwaram market

With earlier media forms, it was difficult to associate the figure of a collector of media with a working class consumer. Such a hobby was considered too trivial to be indulged by a person whose everyday preoccupations concerned more primary human needs. Ever since the arrival of mobile phones and the reduction in cost of storage media, we have witnessed an increase in the range of people who collect and curate various kinds of media content.

## Domestic workers and housekeeping staff

The media universe I have tried to sketch so far has been predominantly male, and it is gendered in the sense women are often excluded from it. However, working class women are no strangers to mobile media, and there are specific practices that mark these women users from other users of the same class. It is very important to bring out these differences to unravel a media universe which functions differently from the one that we have observed so far. In this section, I briefly discuss the practices of women domestic workers and housekeeping staff.

Housekeeping is another thriving sector which provides employment for workers who are local as well as migrants, and who are mostly women. Like security services, there are agencies that hire, train and deploy workers (both men and women) for housekeeping services in large establishments such as office parks and apartment complexes. In addition, an older and significant segment of labour is domestic workers. Many women work for individual families, helping with cleaning, cooking, babysitting, and so on, services which are indispensable for many nuclear family households in the city. For this study, I interviewed women who work in middle-class and upper-middle class households as domestic help, as well as housekeeping staff in shopping malls. Here, I do not provide a comprehensive account of the work conditions or their media practices, but only offer a glimpse into their media practices based on the few interviews I conducted.

Women domestic workers are often introduced to mobile phones by their employers, who give them used or cheap feature phones (usually in order to be able to contact them). In other cases, they are given hand-me-down phones by a male family member (son, husband or brother) when he shifts to a better model. In most instances, this is the first electronic device that these women have owned. Listening to radio is a common use of the phone for such women workers, who play music in the background as they go about daily chores. Some women (especially younger ones) have figured out messaging and other options on the phone, which however is often strictly monitored by the male members of the family. A young domestic worker whom I interviewed mentioned that her brother regularly checks her phone to make sure that she is not having any 'illicit' affairs. She also mentioned that she immediately deletes messages after receiving or

sending them as they can cause unnecessary conflicts at home if discovered. Over time, she also figured out how to delete received calls from the call log. Policing of women's behaviour has been reported by other scholars (Jeffrey and Doron 2013), but women's multimedia usage and other activities on phone have not been sufficiently documented.

Like men, these women workers seek different forms of media content. Some may learn from their sons, husbands and brothers how to use entertainment features, and they get content copied from other phones in the family. In rare instances, they send school-age boys to mobile phone shops with their phones to buy content. But many domestic workers learn to use these features from their employers or their employers' children, especially older women who want to listen to music or play some song, or take pictures of children at home. Such users memorize the steps needed to execute a function effectively on the phone.

One young woman I met, who works as a cleaning staff member at a big mall, is illiterate. However, the way she uses her phone through mnemonic cues is so unique that I had not noticed such practice until that meeting. She showed me how she remembers the path to switch the radio on or off by recalling specific graphic symbols and exact steps needed. She stores important numbers in the device phone book in a similar way, by marking each number with a distinct symbol. She learned this technique from an employer for whom she worked earlier. Other women who are part of her team at work also teach her things whenever they get time off from work. Exchange and copying of content from each other's phones is a regular activity among these users. They gather in groups during lunch time and discuss phones along with the chitchat about their lives, family and work. The technological knowledge circulates along with the media content in these groups in ways that a well-designed training programme cannot disseminate. I discuss the social and theoretical significance of the patterns of such media practices in the next section.

#### Leisure and Media

Mobile phones are perceived by the low-end service workers, discussed in this chapter, as devices that offer them momentary escape from their drudgery-filled lives. They indulge

in multimedia consumption via mobile phones and peripheral technologies during their work time as well as when they are not working. Thus 'leisure' gets interspersed with work, as phones change the way people work and by extension the way they experience leisure. They can afford to be distracted while carrying out everyday tasks at work, since the nature of their work does not require them to apply themselves mindfully at all moments. Moreover, such users have plenty of idle time while at work - a taxi driver waiting in the parking lot for the passenger he is ferrying around the city has a stretch of uninterrupted time to himself, as does an auto-rickshaw driver waiting at the stand for passengers; security guards are expected to be vigilant all the time, but have similar conditions of idle time on work. An understanding of the work cultures in which these users are embedded is very important to comprehend the significance of their media practices. Likewise, an understanding of their experience of leisure through mobile media, against the urban background that allows them little time and few opportunities in between their long work hours, is as important to draw out the social and personal significance of their activities on mobile phones. Before I proceed to discuss the social significance of media practices among these users, I give a brief overview of literature relevant to my arguments on leisure as these users experience it.

The idea of leisure, developed in academic writing in the context of the rise of industrial society, has generally been cast in opposition to work. Veblen (1899) theorized the 'leisure class'<sup>35</sup> as a class that is exempt from useful and economically productive employment and indulges in 'non-productive consumption of time'. Thompson's classic article (1967) shows that the idea of leisure is a product of the stage of industrial capitalism, which for the first time separated the domains of work and home. This strict division between work and leisure has been challenged by scholars who point out that leisure also entails labour (Rojek 2010). Apart from critiquing the work-leisure

<sup>&</sup>lt;sup>35</sup> Veblen developed his ideas on the formation of the 'leisure class' as a social critique of American society which, in his opinion, mindlessly inherited the hierarchical class distinctions of European society. The 'leisure class' delegates everyday industrial labour to the economically underprivileged so that it can indulge in leisure and 'conspicuous consumption' or ostentatious display of status and wealth.

<sup>&</sup>lt;sup>36</sup> Paid work became a systematic activity only at the turn of 19<sup>th</sup> century in the West, and the idea of leisure was created at the same time.

dichotomy, it is also important to understand how they complement each other. In the case of the workers discussed in this chapter, work is sustained by non-work (or 'leisure') activities.

Leisure is usually associated with notions of freedom, choice and self-determination (Kaplan 1960). But many scholars argue that such associations are too simplistic and do not take into consideration the constraints on 'freedom'. Economic and time constraints severely limit the ways in which people experience or pursue 'leisure'. The 1950s and 1960s were full of predictions about the coming of 'leisure society'. Sociologists and social theorists (Dumazedier 1967; Touraine 1971; Kaplan 1975) of the post-industrial society predicted that the working classes would invest fewer hours in work than they did in the industrial society. The however, in the modes of work discussed in this chapter, we can see that work hours often extend throughout the day, occupying most of the waking hours, and it is new media technology that sustains workers through these long hours of (non)work. Digital technology, rather than freeing workers, binds them more solidly to their work. Indeed, arguably it is the technology of 'leisure' that allows them to work. Mobile phones seem to offer the much-needed respite and distraction during working hours that include long periods of inactivity.

Also, it is important to note here the coincidence of the emergence of new kinds of casual labour such as the work of security guards with the arrival of mobile phones. I asked many security guards how their work time would be different if they did not have mobile phones. Some could not answer such a question, while others commented that they would find some other job if they did not have something like mobile phones to occupy their time, especially during night shifts. Though the question seems counterfactual, these responses point to the importance of phones for security personnel in carrying out their work on a regular basis.

<sup>&</sup>lt;sup>37</sup> This prediction was based on a naive belief that technology would eventually deliver humankind from industrial and other forms of repetitive and mindless labour. The Marxist view of leisure that 'free time' is never 'free', but is manipulated and regulated by the state and is controlled by capital, is of relevance here. It is during leisure time that labour replenishes and reproduces itself.

Media consumption is usually understood as a form of casual leisure.<sup>38</sup> A traditional Marxist approach also regards forms of media consumption (especially mass media) as having a numbing effect, which divests the masses of the criticality necessary for the recognition of their oppressed condition. Althusser (1971) lists media as one of the ideological apparatuses of the state. Ranciere's Proletarian Nights (1989), a polemic that challenges the Marxist theoretical construct of the working class in strict opposition to the bourgeoisie, is also a critique of leisure activities among the working classes. He meticulously sketches the individual lives of workers through many narratives, piecing together brief portraits of tailors, joiners, masons, roofers, chisellers, jewellers, typographers, and other workers in nineteenth century France to show the diversity that challenges the notion of a unified working class. He tries to recover the figure of the 'individual worker' from the discourse on class, a figure that appears to be one among the lot but who actively resists the identity of worker imposed on him by collective political groups. Ranciere believes that such a worker need not be enlightened by any public intellectual about his exploited condition, and that he is aware of his situation. It is his aspiration to be someone other than a worker that makes him an individual who resists and subverts the identity of the worker imposed on him.<sup>39</sup>

Drawing on these insights from Ranciere while at the same time being mindful of the differences between his subjects and the workers who are the focus of this chapter, I contend that they are very much aware of the exploitative conditions of their work. It is how they spend their time whenever they are not working, and even when they are working, that makes media consumption a subversive activity. In the case of security guards whose time is not their but their employers', withdrawing into their mobile

<sup>&</sup>lt;sup>38</sup> Stebbins (1992) makes a distinction between casual and serious leisure. If casual leisure is pleasure and indulgence, serious leisure requires application of mind and serious pursuit of interests.

<sup>&</sup>lt;sup>39</sup> Ranciere also sketches portraits of worker poets, writers, painters and singers who spend their nights indulging in the pursuits that are usually considered 'bourgeois'. His focus on time and its use by different kinds of workers destabilizes the generalized conceptions of working class and bourgeois class. He shows how the aspirations, desires and the utilization of off-work hours by workers to pursue interests that are usually regarded as markers of class distinction, allow them to transcend their condition and subvert the system in ways that a revolution cannot.

phones appears to be an act of recovering whatever is left of them outside the long hours that they work every day.

## Sociality of mobile multimedia consumption

Surabhi Sharma's *Bidesia in Bambai* (2014), a documentary film, documents the lives of on Bhojpuri migrant construction workers in Mumbai. Among other things, the film shows how mobile phones have become the medium through which construction labourers access their culture in a city that alienates them from their natal homes and families. Without mobile phones, these workers would be forced to adjust to an urban environment that offers very little that is culturally familiar. The construction workers that Sharma documents in her film are not very different from the workers described in this thesis.

The informal and service sector workers described here build a unique relation with their phones. Amongst migrant security guards, drivers, cooks and cleaners, mobile phones and media content become anchors around which social relations are constructed. The costs of not sharing media content are larger for people whose everyday lives revolve around the constant procurement of new content. Such small acts cannot just be seen as economic exchange, transfer or social sharing of content — they are exchanges through which social relations are built. In many cases, generous sharing of technical skills and content has tangible material benefits for new entrants into the digital world. It acts as a kind of social capital that is convertible in times of need. Thus, technical skills and media content have value for actors when they share it with others.

Another significant aspect of this experience, common across these different categories of workers, is peer learning, which takes place without any targeted training. We can observe a kind of organic growth of technical knowledge related to one specific domain—entertainment—among such consumers over a period of time. The pedagogical value of this technical learning has practical implications for the conceptualization and design of training programmes aimed at achieving digital literacy. Instead of brushing aside such knowledge as trivial, we perhaps have to consider how it is useful to the life, work and social contexts that these users find themselves in. Technology makes sense only when there is a need for it in people's lives. Trying to

define and plan programmes to foster development or income generation via technology without taking into consideration the aspirations and needs of the people for whom they are designed, and the ways in which they already use such technologies, will only result in 'failures' (as is routinely reported about ICT4D programmes). There is an immediate need to understand the various kinds of digital literacies or 'illiteracies' already found among those I have defined as digitally marginalized users. I elaborate more on this aspect in the next chapter.

## Mobile media practices in the changing urban context

As the city of Bangalore is transforming to accommodate a globalized middle class, leisure spaces for the lower or working classes are shrinking day by day. Single screen cinema theatres cannot sustain business in the face of competition from multiplex cinema theatres. Cinema halls used to cater to all kinds of people, whereas multiplexes are spatially and socially exclusive because of the high ticket prices. Also, the content showcased in such spaces is pitched at a certain kind of audience because multiplexes cater to the tastes and needs of the middle classes. The cinema hall, once a great melting pot, is increasingly the domain of the working classes, and these spaces too are shrinking as single-screen theatres close down due to competition from multiplexes.

With the coming of new media technologies, there has been a significant change in the video culture. Scholars have largely examined video culture in relation to cinematic culture (unlike audio culture, which has always gone beyond film cultures). While this relation between video and film persists in the new formats too, there are also videos that are produced independent of cinema, especially with the advent of new media technologies. Moreover, vernacular video production is on the rise. A remarkable aspect of this development is the rapid proliferation of sub cultures of video production and

<sup>&</sup>lt;sup>40</sup> Multiplex cinema theatres have been given a tax holiday in India, which means that they are exempt from the entertainment tax levied on single screen exhibition theatres. Also, the advent of multiplexes has taken away the middle class audience that populated the balcony seats (with higher ticket prices) in regular theatres. See Athique and Hill (2010) for a detailed history of multiplexes in India.

<sup>&</sup>lt;sup>41</sup> Lakshmi Srinivas (2010) writes about the experience of cinema by different classes of people, especially the upper middle classes, before the advent of multiplexes in the city of Bangalore.

consumption, enriched by the inclusion of different dialects. The popularity of Sabri and Santhali video albums and short films among migrant security guards, described above, is a testimony to the proliferation of vernacular video cultures. Ravikant (2017), commenting on vernacular video cultures, noted that new media has made public expression possible in different dialects. He observed that whatever was lost in print media due to standardizing and officializing various dialects into one language is being reversed by video cultures of the new media. This may thus be a moment of redemption for Indian dialects. We see a burgeoning online presence of languages that were never seen earlier in other media forms, as production costs have drastically come down. Low budget short films and song videos are being produced and distributed through YouTube channels and DVDs directly. Such content has a steady audience base in migrant workers across India.

Several scholars stress that leisure is associated with cultures of representation, and that most leisure spaces are homogeneous with respect to their patrons (Rojek 2010). Migrant workers from Orissa, Bengal, Bihar and the Northeast who come to the city for work do not fit into the few spaces of entertainment that cater to the local Kannada-speaking populace, and to speakers of other South Indian languages such as Tamil and Telugu who populate the city. The content that is available for consumption in these spaces often does not make sense to a migrant, who is far removed from the linguistic culture of the city. Also, their work schedules often do not allow them to access the few places that are available to them (such as theatres screening Hindi films). For these reasons, migrants and other service sector workers find their own ways to meet their entertainment needs. Mobile phones enter the space vacated by other media forms and spaces. The phone functions both as a media form and as a space of consumption, and ultimately as a micro infrastructure (an access point for entertainment) for many digitally marginalized people. One might claim that for such workers, the experience of work and leisure in cities such as Bangalore is mostly mediated by mobile phones.

\*\*\*

In this chapter, I have elaborated on the use of mobile phones as a multimedia technology by digitally marginalized groups in Bangalore and described their experiences with phones as observed on streets and in markets and other public places. I have explained the social significance of listening, watching, and sharing practices mediated through mobile phones. Though people across social classes listen to music or watch videos on mobile phone screens, the sociality of consumption of multimedia content, and the interdigitation of consumption for leisure and at work, especially amongst workers in the new service economy, emphasizes the importance of their media practices for them. In the next chapter, I turn to the role of mobile phone shops in facilitating the exchange of multimedia content, and trace the offline digital economy constituted by such shops.

# Chapter 4

# THE INFORMAL OFFLINE MEDIA ECONOMY IN BANGALORE

In this chapter I describe the micro-economy, driven by mobile phone shops, that caters particularly to the needs of digitally marginalized users (discussed in the previous chapter). The chapter draws on interviews with owners and employees of mobile phone shops and vendors in media markets of Bangalore. I describe the modalities of offline exchange and distribution of content that are facilitated by these shops and detail the modes of distribution of content through mini- and micro-SD cards and thumb drives, the ways in which transactions take place, and the 'profiling' of customers by shopkeepers. I sketch the evolution of the digital offline economy for multimedia content in India, drawing on the earlier literature on electronic cultures and urban media markets and the debates on audio and video piracy. I show that mobile phone shops have become important spaces for the dissemination of technological information and for dialogic learning about the technology, which has a larger significance for the entertainment and media content markets.

As mentioned in the previous chapter, mobile phone shops are the primary sources of digital content, particularly for the kind of users who are the focus of this thesis. Here, I provide a description of these shops that are spread across several localities in Bangalore, the economy they constitute, their modes of functioning, the businesses they are associated with, and their pedagogic significance in enabling groups of users to improvise mobile phones to meet their distinct needs.

# Mapping the digital offline economy

A substantial scholarship has emerged on the functioning of the online economy since the late 1990s. This scholarship has covered mainstream, regular, alternative, and even the dark side of online modalities of economic exchange. Key themes include: software production via collaboration through the Internet (Benkler 2006; Kelty 2008); e-commerce and its various aspects (Laudon and Traver 2014); the online entertainment economy of YouTube and iTunes (Voida et al. 2006; Snickars and Vonderau 2009) and the changing dynamics of intellectual property and copyright with the advent of the Internet and sharing technologies (Morris 2008; David 2010; Gee and Strumpf 2010). Bartlett's work (2014) on the dark 'underbelly' of the Internet—the side which is not readily visible—shows the reach of scholarly gaze in understanding the layers of the online world. He sketches the vastness of this economy and shows how the Internet is used as a medium of trade for sourcing many illegal goods.

In comparison with studies on new modes of circulation through the Internet, the offline digital has received very little attention. In addition to understanding offline as a distinct domain in itself, we need to trace the myriad interconnections between the online and offline worlds to comprehend the functioning of the emergent digital economy. Unlike online (visualized as one huge network with many nodes), offline is a fragmented and disbursed space without a well-defined structure, which renders it difficult to conceptualize or study. It is not just an informal space but often an extra-legal one, making it invisible and non-traceable. Therefore, this space has to be studied in its concrete manifestations on the ground.

The digital offline economy can be understood as a part of a larger electronic culture that is taking shape in India and other Asian and African countries, with more or less the same characteristics. Batson-Savage (2008), describing the cellular phone scene in Jamaica, mentions that both formal and informal economies are intertwined in that media geography, and is marked by the co-presence of small mobile phone repair and other service providers along with big telecommunication companies (which rely on such small providers but also operate independently). Although there have been full-fledged studies on film and other forms of popular media content, very little has been written about the content industry as a whole that has more or less converged after digitization, and how the non-formal, extra-legal economies feed off mainstream industries.

Of particular interest in this context is Sethi's (2009) work on non-legal markets and their centrality for the digital experience in India. He writes about 'everyday urban networks of electronic culture', arguing that 'street and non-legal cultures are a feature of all post-

global cities, but what is significant about India is their preponderance, as well as ability to innovate within existing built forms' (2009: 137). The developments discussed in the previous chapter point to the emergence of a new electronic culture in conjunction with the advent of mobile phones.

There are very few studies in the Indian context which touch upon specific technologies such as mobile phones and the economies that get configured around them. Rangaswamy and Sambasivan (2011) have studied grey markets and marginal sections of people, and their use of digital technologies which mostly falls in the domain of extralegal. They remark that the universal infrastructure can be visualized only when careful attention is paid to non-traditional media spaces. Rangaswamy and Nair (2010), writing on mobile phone shops in Mumbai slums, point to their importance in becoming a site of 'convergence for the commercial expansion of mobile phone technology', and draw attention to accessories as new entrepreneurial commodities in the expanding ICTs economy. They emphasize the importance of mobile phone shops in the adoption of mobile phones among low income groups in India, and question the necessity for huge investments into ICT infrastructure against the background of success of mobile phone shop ecology in India. From these studies, we could gather that the digital offline in India has a peculiar class feature and encompasses those people who have not yet achieved full access (in the larger sense of access to knowledge, skills, and infrastructure) to digital technologies.

This chapter focuses on the digital offline with respect to the Indian media economy. Previous scholarly work on informal media economies, especially piracy, has documented other offline modes of exchange, particularly in the entertainment sector. However, after the arrival of mobile phones, offline exchange has grown to an extent that is of immense significance to the Indian media and entertainment economy. Digitally marginalized users have greatly contributed to the expansion of this offline economy. The features of the digital offline, as traced in Bangalore, are an example of how the regular, extra-legal, and informal are all intertwined to create a network that is at once dependent on and independent of the existing online infrastructure.

#### Media economies and informal distribution networks

Chapter 2 provided an overview of studies on regular distribution in the media industry as well as informal and pirate networks, especially focusing on the media format of DVDs and CDs. In addition, there is an emergent body of literature on digital distribution online, both from the regular market perspective and on the 'dark Internet' of illegal sharing, peer to peer file sharing communities, torrents, and other mechanisms (Bartlett 2014). However, there are hardly any studies on digital distribution that exceeds or overflows boundaries between online and offline.

In his overview of recent trends in media studies, Lobato (2012) notes that studies of media economies have moved away from industry-led classifications of the economic processes specific to them, and have drawn on theoretical insights from various disciplines, especially economic anthropology and sociology. He suggests that media scholars need to transcend conventional definitions of (film) distribution, which only include the few 'legal' ways of reaching the audience. Instead, they should view distribution as encompassing all the ways in which films reach the audience, because film cultures today have a much broader scope than the regular market distribution modes. Drawing on Larkin (2008), Sundaram (2010), and others, Lobato (2012) notes the centrality of informal networks of distribution in reaching diverse audiences that are not normally or directly covered by the industry. He argues that 'shadow film economies' are important to the ways in which people experience films across the world:

I make a different analytical distinction—between formal and informal distribution—which seeks to cut across some of these categories and reorganize them in a productive way. Formality refers to the degree to which industries are regulated, measured, and governed by state and corporate institutions. Informal distributors are those which operate outside this sphere, or in partial articulation with it... [It] aims to show how the informal distribution realm, far from being a marginal force at the edges of film culture, is actually the key driver of distribution on a global scale (Lobato 2012: 4).

For scholars of piracy, informal distribution is about providing access to audiences where the industry is not present. Viewing informal distribution mechanisms from the legalistic standpoint as violation of copyright misses this very important point. 'Shadow circuits', as Lobato argues, are more than an anomaly, particularly in the non-Western contexts; instead, they are an integral feature of 'audiovisual landscape' (Lobato 2012: 10) and shape how people access films and other entertainment content.

Thus, viewed from the perspective of users, the process of distribution is more a question of gaining access than a market mechanism to reach audiences. Concepts of piracy and informality, although useful in highlighting the controversial nature of this offline economy, are not very useful in understanding how various mechanisms of distribution and circulation operate on the ground, as experienced by people who are not directly connected or catered to by the media industries. The tensions between regular and pirate economies, and formal and informal networks, are indeed important in discussing the functioning of industry. To understand media cultures and the cultural economy of media artefacts from users' perspective and experience, distribution appears to be a more useful category or entry point than production or consumption. I discuss this aspect in more detail Chapter 5, whereas in this chapter I draw on my fieldwork to show how media products are accessed through informal and extra-legal modes of distribution.

Like the industry inspired definition of distribution, studies on piracy have focused mainly on film and music. But with the advent of digital and copying technologies, there are many more forms, genres, and media formats that are circulated, shared, and informally distributed. Videos downloaded from the Internet have an offline circulation, both through mobile phone shops and by users using Bluetooth and sharing apps. This chapter explores the offline digital multimedia economy and how it is connected with, and dependent on, the online economy. I use the term 'offline' to mean an economy that is disconnected from the Internet while also showing how it is dependent on the online economy. I describe a range of transactions and exchanges facilitated informally by mobile phone shops, which I have identified as key sites in this economy catering to digitally marginalized users.<sup>42</sup>

<sup>&</sup>lt;sup>42</sup> The term 'offline', as used in this chapter, does not include physical sales in CD and DVD outlets, either by distribution agents or pirate distributors.

# Mobile phone shops of the neighbourhood

Since the mid-2000s, mobile phone shops (see Figure 5) have become as common and widespread as grocery and vegetable shops across India. Although we do not have statistics on their presence and functioning, they have become ubiquitous commercial entities that can be seen in almost every other street corner in Bangalore (and in all other cities and towns of India). Mobile phone services and accessories shops are also registering their presence in many villages.<sup>43</sup> The emergence of such shops is relatively recent and their growth and proliferation across the city are the result of the ever-increasing mobile phone user base.

These shops sell different kinds of mobile phone accessories such as mobile cases, flip covers, strings, screen guards, SD cards (memory cards and chips), earphones and headphones, duplicate chargers and batteries, and USB cables (see Figure 6). They often offer recharge facilities for prepaid network connections as well as sell and arrange for the registration and activation of prepaid SIM cards. They do all the necessary paperwork to get a phone connection for those customers who cannot read or write or cannot handle the forms required, thereby connecting the less privileged to the mobile phone communication network. Mobile phone shops provide a one-stop solution for all communication needs, and many shops are authorized retailers for telecom service providers, thus, earn commission for selling recharge and other services. The services of the service of the services of the service of the services of the service of the servi

\_

<sup>&</sup>lt;sup>43</sup> I learnt about the importance of these shops in rural areas from Sandeep Mertia, a colleague in the Social and Digital Media Fellowship programme at Sarai, CSDS, Delhi. His work on telecenters in two villages of North India also covered mobile phone shops and their role as technological 'addas', educating and helping rural people to understand digital technologies. I have also noticed these shops during my travels across cities and towns in India over the last five years.

<sup>&</sup>lt;sup>44</sup> Cheap mobile phones and prepaid SIM cards are the main factors responsible for the mobile phone revolution in India. They have brought in low income groups into mobile communication network. The model of prepaid cards and small mobile phone currency top-ups have enabled low income people to use phone by making small payments whenever they can.

<sup>&</sup>lt;sup>45</sup> Most telecom providers offer a commission of 2 per cent for recharge or currency top-ups. Given their overheads, the commission is hardly sufficient to sustain such shops; hence, the owners generally sell other commodities such as phone accessories, and pirated media content.



Figure 5. Mobile phone shop front

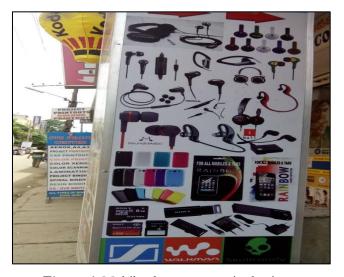


Figure 6. Mobile phone accessories business

In some cases, mobile phone shops have evolved from stationery stores or 'fancy stores' (small retail shops that sell a variety of items (such as bangles, cosmetics, key chains, envelopes, and others), or they may be part of retail shops offering other services such as photocopying outlets and cyber cafes<sup>46</sup> (see Figure 7). Many shops run other businesses alongside selling mobile phone currency and accessories, such as offering repair services, and selling used phones.

102

<sup>&</sup>lt;sup>46</sup> See Rangaswamy (2009) to understand the non-formal business of cyber cafes in India.



Figure 7. Mobile phone services and accessories with retail goods business

#### Extra-legal multimedia content business

In addition to selling phone currency recharges and accessories, some mobile phone shops provide extra-legal content, such as Bollywood and other regional language film music and movie clips, which are loaded onto SD cards and flash drives and sold to customers for a small price, on a per gigabyte (GB) basis. The price for one GB of content for a new customer ranged between 50 to 60 Rupees during my fieldwork in 2015. If the customer was fairly regular, the price came down to 30 to 40 Rupees. Some shops even transfer full movies. Pornographic and other 'adult' videos are sold at a higher price. In some shops, a GB of pornographic video content is sold for around 150 Rupees (depending on the type of content - hard core or soft core). These shops keep computers with USB card readers connected to all USB ports, signalling the flourishing nature of the content business. Mobile phone shops which are paired with cyber cafes are more likely to be involved in informal distribution of multimedia content than those that only offer recharge and other repair services, or sell accessories alongside.

The content business in these shops is usually hidden from public view and not everyone can walk in and ask for films and music for a price. Many shop owners do not even acknowledge that they sell content, and I found it difficult to get shop owners speak about this business. Even when they did, they presented a sanitized picture of their business. Almost every other user I interviewed during fieldwork mentioned that they bought content from mobile phone shops. But when I visited the shops and asked for

the content, shop owners looked at me with suspicion and refused to speak to me.<sup>47</sup> I roamed in market places where media goods were sold and visited several mobile phone shops in city for a period of nearly three months, and it took much effort and time to gain entry into this network. Despite getting access, I could never get a comprehensive account of the range of business from the owners themselves. I had to piece together fragments of information gathered from various sources to get a nearly full picture. Shop owners gave evasive answers and partial accounts, but this reticence itself revealed much, and their fragmentary narratives were also helpful in confirming information provided by consumers. One owner who had discontinued this line of business opened up in an interview, and explained the logistics of it. However, most of my insights came from customers who patronize these shops.

Bhadrappa, a consumer who I had already known for three years by the time I interviewed him for this project, took me to a mobile phone shop and asked its owner (whom he had known for the last five years) to load my SD card with old Kannada film songs. This was my first opportunity to witness this business first hand. I went to the market with Bhadrappa on two more occasions, and each time I was shown collections that the owner considered 'safe'. After we left the shop, Bhadrappa commented with a smirk on his face:

He does not want to show you all the things he shows us. It was obvious from the way he spoke to you. Come to think of it, it would be inappropriate to show a woman all that he has. He does not trust you fully to speak to you about the business. There are more lists in his computer than just old Kannada songs.

The customers of these shops are mostly consumers like Bhadrappa, who do not regularly download music and movies, have limited access to the Internet, or do not possess the skills required to procure content from the web. The mode of transfer of content is usually through micro- and mini-SD cards or pen drives. The shop owners often have a computer with broadband connection kept in some inconspicuous corner of

women visiting such spaces and asking for content.

\_

<sup>&</sup>lt;sup>47</sup> One of my informants who accompanied me on one occasion to a shop told me that I looked like someone from police department or the media, because they are not used to educated

the shop, on which they download songs and movies that are in demand and then transfer this content to users. Shop owners or their assistants (who have good technical knowledge of computers) do the preliminary work of curating the downloaded content before they sell it. They organize it into collections based on categories such as film stars, music directors or films. There is a huge demand in South India for film songs of popular movie stars, such as Raj Kumar in Kannada, N.T. Rama Rao in Telugu, and Rajinikanth in Tamil. Many of these shops also cater to a multilingual customer base. Bhadrappa himself speaks three languages —Telugu, his mother tongue, as well as Kannada and Tamil. He purchases popular media content in all three languages. Audio and video playlists are improvised by these shop owners based on specific requests and demand by their customers.

Several owners are also avid collectors of music and films. Some even have catalogues of their collections. One shop owner showed me an old 200-page notebook containing all the music and films he had collected over ten years, including cassettes, CDs, and DVDs. Such shop owners continuously revise and update their catalogues to meet the demands of customers. Such collections are built up over months and years, starting from a simple request for a song or a movie from customers. The shop keepers also recommend collections to new users. Sometimes they load a sample of content for free when customers give their phones for repair or other service, thereby inducing them to return to procure more content.

Most of the content downloaded, sold, and circulated in this way does not fall within the ambit of the normative 'legal'. Some of the content, especially music albums and movies, are copies made from 'ripped' DVDs and CDs bought from regular markets. In addition to the Internet, content is also sourced from pornographic video trading networks offline. I gathered this information from Manju, a young man in his early twenties, who works in a mobile phone shop as an assistant. I have known Manju since he was a schoolboy. After failing the 10<sup>th</sup> standard exam thrice, he moved to a nearby city and started working for a man from his village. Manju runs errands and looks after this person's shops which are spread across the city. Sometimes he is sent to procure content

from a network that sells pornographic material in a 'notorious' street in Bangalore.<sup>48</sup> Young men like Manju do not know the entirety of this network, and are only given the videos on a small pen drive or an SD card. During a conversation, Manju mentioned how he got caught up in this business:

Each time it is a different person who meets me on my boss's orders and hands over a pen drive along with other goods such as plastic ware, shoes, and other innocuous things. I know what I am doing and sometimes think it's wrong. But I am caught too deeply in this sinister web to leave my job or my boss. I am addicted to those videos myself, and I cannot help it.

He shared this information only after I promised that I would not reveal his identity or the shop where he works. The existence of such sources of pornographic videos was confirmed by several informants who work as hotel cooks and cleaners in the Majestic area, who revealed this information only because I went to interview them along with a close friend who worked with them for several years.

### Social class profile of customers in mobile phone shops

The content business in mobile phone shops is catering only to the category of people I have termed as digitally marginalized users. In this context, commercial exchange is defined by social class, in the sense that shop owners refuse to provide such extra-legal content to customers who appear to belong to the middle class. The customers who these shops cater to are not aware of copyright or other legal dimensions of this mode of exchange. Mobile phone shop owners, on the other hand, are fully aware that they do not have distribution rights to trade content and are also cautious about the possible adverse legal implications of this business for them. Hence, they avoid educated middle-class customers who might have a similar understanding of the shadow nature of this business, and have developed social antennae to deal only with certain kinds of customers. These exchanges take place only after the shop owners or attendants are able

\_

<sup>&</sup>lt;sup>48</sup> According to Manju, pornographic material procured through this route consists mostly of amateur videos rather than 'professional' pornography downloaded from the Internet. They are 'desi' films featuring innocent people or prostitutes who are either caught on camera surreptitiously or hired to perform in front of the camera.

to socially profile their customers and establish a relation of trust with them, so that they do not later threaten their livelihoods.

When questioned, some shop owners in fact denied that they are engaged in content business, precisely because the entire economy is informal and extra-legal and often very clandestine. My repeated failed attempts to get mobile phone shop owners to acknowledge this part of their business made this very evident. Before Bhadrappa took me to his friend's shop, I had done a month of fieldwork in the area, speaking to various shop owners, but had not uncovered any information about this trade. The moment I told them that I was interested in buying songs, the owners always became alert and reticent. The expression on their faces changed, and several owners completely ignored my presence after telling me that they do not sell songs or films. When I went with my informants who were regular consumers of such content, owners were more open to share information. I was also told that I 'do not look like one of their regular customers and that they thought I belonged to a different class'. In addition to class, gender and age also play a significant role in such transactions. None of the shop owners I spoke to had seen women of my class and age coming to ask for songs. To my request for songs, one shop keeper retorted:

You people are from this generation. You know how to download songs from the Internet. Go check the Internet. Why do you come here asking for songs, instead? Do you think we are running some show here?

From such experiences, it became evident to me that unless a relationship of trust is established with a long-time customer, it would be very difficult to get the shop owners speak about the business or admit that they are involved in such activities, let alone engage in a transaction with people whom they profiled as their 'non-customers'.

\_

<sup>&</sup>lt;sup>49</sup> Bhadrappa commented, 'SaadharaNavaagi nimmantavru idnella keLalla, adralluu heNNmakkLu idnella keLkondbandre samshaya baralva?' ('Usually people like you do not come asking for such things, especially when women come asking for such things, won't anyone become suspicious?') He added, 'The shop owner does not suspect me because he knows me for three or four years, why would it be the same for you?'

#### Sideloading

Mobile phones have not just heralded a new media infrastructure and brought in a completely new set of users, they have also instituted new modalities of exchange for the circulation and distribution of media content. The distribution of content offline through pen drives and SD cards is technically referred to as sideloading. The major transformation that requires scholarly attention here is the commercialization of sideloading, which initially occurred informally through the circulation of content among friends and groups of users with similar interests. Mainstream market players are gradually becoming aware of this practice and are inventing strategies to extract value out of them by pushing for licensing and other forms of regulation. I discuss these developments in detail in the next chapter.

### The pedagogical function of mobile phone shops

Mobile phone shops not only procure and distribute content for those who cannot afford (or lack the knowledge) to be online regularly to download content directly, but also serve a very important function by educating the digitally marginalized about how to use these technologies in specific ways. Baudrillard (1970) writes that consumption requires prior knowledge. Consumption for him is never an individual process but a collective and institutionalized one sustained by processes such as acquisition of prior knowledge of the use of a commodity, and the existence of a socially attributed meaning for the commodity. When a commodity is complex, the level of knowledge and the complexity of skills needed to consume it also increases. Members of online user communities constantly update each other about new products and how to use them, and the market itself equips users on web platforms with the necessary information to consume their products (Gensollen 2007). Learning to use social media spaces and participating in activities in those spaces requires some familiarity and training, which users get by interacting with other users and also by reading instructions provided by the creators of such platforms. Similarly, Terranova (2000) discusses how markets provide essential information and users tap into it. However, this thesis is about first-generation users of digital technologies who do not have the background or capacity to equip themselves with the knowledge required to use these technologies. Therefore, there is a need for both orientation and facilitation for such users so that they are familiarized with basic required skills to operate the gadgets. From my research, I have discovered that mobile phone shops perform the crucial role of such a facilitator.

I illustrate this point through the case of Kempaiah, who I met during my fieldwork. Kempaiah is an old man who came to Bangalore from a remote village of Karnataka. He has three daughters, all married and settled in Bangalore, and he lives alone in the city to earn money and send some of his savings back to the village where his wife lives. He got work as a security guard close to the house of one of his daughter. His job requires him to sit in front of the apartment complex for the most part of the day. As he is illiterate, his use of mobile phone is limited in several ways, except for a few very specific purposes such as making calls, listening to radio and playlists on phone. However seeing him use his mobile phone, it was very hard to tell that he is not literate.

Kempaiah has a basic feature phone with radio and MP3 playback options. He is an avid consumer of Kannada film songs and listens to radio most of the time. The mobile phone shop at the street corner is his one stop solution for all his needs related to his mobile phone. He gets his phone recharged there, gets songs of Kannada movies loaded on his phone, and consults Rakesh, the shop assistant, if he has any difficulty in operating a feature on his phone. Rakesh helps and teaches him about the various features on his phone, particularly the radio and music player. Once Rakesh demonstrates how a feature functions, Kempaiah tries to remember the number of steps required to operate it and practices it in front of him a few times. Rakesh has simplified the steps for Kempaiah for navigating his contacts/address book, by giving him a few mnemonic cues. When Kempaiah cannot figure something out, he usually visits Rakesh and requests his help. Over many such interactions, Kempaiah has learnt a lot about mobile phones. He said he might find it difficult if he were to use another phone, but is hopeful that assistants like Rakesh will teach him everything that is useful even if he buys a new phone. In fact, Rakesh is persuading this 75-year-old illiterate man to migrate to a second-hand smart phone with better audio quality, and Kempaiah is seriously considering this suggestion as it would enable him to watch videos (which he cannot do on his current feature phone).

Thus, for many phone users such as Kempaiah, mobile phone shops are places for dialogic and need-based learning, especially for those who do not have young people in their households (who are likely to be familiar with digital technologies and can teach those skills to them). Mobile phone shops, thus, become their default centres for

learning. They come to these shops with specific requests and the owners or assistants teach them what they need to know. Their requirements mostly revolve around entertainment, while uses advocated by government and market intervention programmes, such as accessing government apps and mobile banking, hardly evoke any interest. In interviews, these users told me that they prefer face-to-face interactions or transactions in matters of money and other important issues. But they are really interested in learning how to search for and listen to an old film song on YouTube, download a clip so that they can watch it without access to Internet, and how to share it with friends. All these phone functions also require complex technical skills which they learn from other users in their groups or from mobile phone shops.

Government schemes and programmes which seek technocratic solutions for governance or social problems often fail at the level of implementation, despite having an appropriate vision and conceptualization. Mertia's study (2014) of government telecentres as well as training centres for rural youth in north Indian villages sheds light on the subversion of such spaces into entertainment centres. Similarly, Mazzarella (2010) shows the disparity between the hype created by ICT4D programmes and the ground reality of their outcomes. These studies indicate that users are not just passive receptors of state programmes or market-provided technologies, but are active agents who appropriate the media infrastructure to serve needs or desires that are meaningful to them. Contrary to the assumption (made by interventionist programmes) that economically marginalized groups lack the skills to use digital technologies, we can see that a certain kind of digital literacy is already present among such users, and is spreading at a very fast pace. Digital literacy, especially in the entertainment domain, has disseminated organically among digitally marginalized users.

Barbrook (1998) points out that the success of the digital economy depends on the presence of as many users as possible on the new infrastructure. Inclusion, as conceptualized by many government led interventionist programmes, is about bringing in more and more people to use digital technologies in ways favourable to certain predefined objectives. However, this study suggests that despite having access to technologies, users may not be interested in the projects pushed by the state or market players. Thus, the project of inclusion is less about providing infrastructural facilities or imparting necessary skills to use the infrastructure to meet specific objectives, but more

about defining relevance of use to suit the life contexts of different user groups. Infrastructure and targeted training alone will not be sufficient to induce users to access technologies in pre-defined ways. The user interaction facilitated by mobile phone shops and the resultant success of the entertainment industry shows us that technical knowledge, skills, infrastructure, and motivation need to be present together for users to make use of technologies and achieve specific outcomes.

## Evolution of informal media markets in Bangalore

The emergence of the extra-legal content business in mobile phone shops coincided with changes in the large informal media markets in Bangalore, such as National Market, which were once hubs for the sale of pirated CDs and DVDs. The Majestic area of the city, where the main bus and train stations are located, has been the key site for the large informal media markets which traded Bollywood and international cinema since the 1970s. This area also has a long history of trade in smuggled imported goods such as radios, VCRs, video cassettes, perfumes, leather goods, branded accessories and apparel. In addition, Majestic has been one of the most important centres for Kannada film exhibition – the sheer concentration of single screen cinema theatres in this locality is a testimony to this fact. Traders I interviewed mentioned that the last CDs and DVDs shops went out of business in 2011. Today this entire market area has been transformed into a mobile phone and accessories hub.

The old trade of DVDs and CDs still thrives in places and can be spotted here and there along the sides of underground walkways and sky walks connecting bus and railway stations. Due to the steady fall in their business, these traders were forced to shift to other businesses. Several 'videophiles' (who used to be traders in the pirate networks) told me that they cannot sustain their business because their major customer base—the middle-class niche audience for international and parallel cinema and even popular Bollywood cinema—has started sourcing content through online peer-to-peer networks. The advent of unlimited broadband and the Internet enabled customers to source their content directly, driving the traders out of business. A few traders also mentioned that satellite television channels telecasting international parallel cinema drew away the audience which could not tap into the Internet or peer-to-peer content sharing communities. This change signals not just the rise in the popularity of a particular media

form — the Internet, but also a shift in the customer base and their interests. The informal markets huddled in this area currently cater to a different social class of users, which is not the same as videophile and cinephile middle class customer base which was hungry for international film and media content in the 1990s. Shops in National Market and neighbouring bazaars such as Burma Bazaar, Hong Kong Bazaar, and Bangkok Bazaar have all shifted to the mobile phone and phone accessories business. A walk through the aisles of these markets is enough to register this transformation. The major hardware and electronics market—S.P. Road market<sup>50</sup>—is diversifying similarly, and an entire lane in this market now specializes in the mobile phones and accessories trade. Although CDs and DVDs still have a market in regular outlets such as the large book stores and outlets of DVD distribution companies, the informal spaces on streets and small shops tucked in corners of busy market places, and the pirate networks supplying content, have almost disappeared.

It is here in the Majestic area that one can see a flourishing informal trade in content through micro- and mini-SD cards. Unlike in other localities of Bangalore, some of the mobile phone shops in this area do not conceal this trade in extra-legal content owing to the long presence of trade of pirate media goods. They display boards telling customers that pictures and videos are downloaded onto phones and pen drives in their shops. Although mobile phone shops are spread across the city, they do not blatantly advertise this content business as do the shops in Majestic. Transaction based on trust or social profiling of the customers is not applicable to the shops in this area. Shop owners do not seem to be bothered if the person who comes looking for content is a legitimate customer or not. Exchanges are conducted in a purely transactional way, without being concerned about who the other person is. Like the earlier pirate networks, regulatory

-

<sup>&</sup>lt;sup>50</sup> This market specializes in all electronic goods especially computers and accessories both branded and non-branded varieties. It is referred to as techie's paradise for innovation and assembled machines as all kinds of accessories and spare parts related to computers are available here. People visit this market for assembled computer hardware that gives the best price for the finest of machines. Also, the prices of computers and other kinds of hardware are lesser here compared to showrooms. Many traders of this market also have online presence at e-retail platforms such as Flipkart and Snapdeal and they continue to expand their business both as retail and wholesale traders in electronic goods.

authorities such as the police are well aware of the informal, extra-legal trade that takes place in such shops. Here shop owners are not afraid to acknowledge that they are involved in such activities. They regularly give a small token amount to police and other authorities as a safeguard against their eviction from these spaces, and for running business smoothly.<sup>51</sup> These shops near the National Market area are very busy fronts where customers have to fight for the shop owner's or assistant's attention. These developments indicate the continuation of the old trade of pirate media content and other goods, although in a different format (micro- and mini-SD cards), which explains why mobile phone shops are so explicit about media content business in this locality.

#### Changing materiality of exchange of media content

On one hand, we are witnessing macro level changes in large media markets, while on the other hand there is a parallel micro-level development driven by mobile phone shops and the ways they operate in large urban centres and small towns. Micro- and mini-SD cards and pen drives have replaced CDs and DVDs of the 1990s. The option of copying data multiple times on SD cards and pen drives has opened up new possibilities for users, as one private bus driver who had recently discovered the versatility of this format commented:

You know these pen drives can be erased and loaded with new songs. When I used to buy cassettes, there was a limit on how much I could buy and listen to while I drove. Now with pen drives, when I get bored of listening to the same songs, I just go to the nearest mobile phone shop and load new songs. The shop I visit always renews my collection with latest Kannada songs.

The social dynamics of media consumption has radically changed and has been democratized due to changes in data storage and exchange technologies.

to carry on their trade.

<sup>&</sup>lt;sup>51</sup> This kind of complicity of police with informal traders is seen across the spectrum of the informal economy. For example, see Anjaria's work (2011) on street hawkers in Mumbai, where he details the arrangements between the police and the street hawkers which allow street vendors

These new modes of storage and exchange also point to the changing nature of piracy in the media geographies of Bangalore and other cities in India. From centralized informal market spaces, piracy has been decentralized and invisibilized. Many people are mostly not aware of the content business carried out by mobile phone shops, except for the shops in places or media markets where earlier pirate networks that traded media goods are present. The Indian informal media economy, especially in its offline version is fragmenting and proliferating in as many diverse and creative ways as online economy. As the online economy becomes more and more customized and personalized to suit individual customers, so does the offline economy, which has equal potential to accommodate diverse interests. This turn is mainly due to the changes in digital storage and exchange technologies, and the presence of curators of media content in small mobile phone shops who understand the needs of the digitally marginalized users, and customize the content for them.

\* \* \*

In this chapter, I have explored the digital offline economy driven by mobile phone shops of Bangalore, pointing to changes in the modality and materiality of media content since the arrival of mobile phones. I have also highlighted the very important pedagogical function of these shops in equipping digitally marginalized users with necessary knowledge and skills to access the resources and content they require. In the next chapter, I discuss how the media content industry is responding to changes in the digital user base (described in Chapter 3), as well as to the unauthorized offline distribution of content driven by mobile phone shops.

# Chapter 5

## **CONTENT - CONSUMPTION COMMODITIZED**

In the previous two chapters I have described the new users on the digital horizon since the arrival and unprecedented spread of mobile phones; their multimedia consumption practices; and the offline economy driven by mobile phone shops that both equips such users with essential knowledge for using technology and provides the content for consumption. This chapter links consumption, circulation and sharing practices described in the earlier chapters to the modes of distribution that have emerged on the digital and telecommunication infrastructure. In particular, I describe the strategies developed by the content industries (particularly regional and vernacular media content industries) to extract value out of multimedia content, strategies that are contingent on the modes of consumption prevalent among the digitally marginalized users. I explore the co-dependent relation between the regular market for multimedia content and the extra-legal digital offline economy driven by mobile phone shops (which is partly dependent on the regular market to source content for unauthorized distribution). The purpose of this discussion is to trace the different ways in which value is extracted from the production and circulation of content following the digitization and internetization, in order to understand more broadly the modalities of capitalist accumulation on the digital infrastructure.

In this chapter I aim to sketch the larger universe of digital multimedia with a focus on new modes of distribution on and through digital infrastructure, by mapping the circulation of multimedia content as it enters and exits commodity phases at various points, creating opportunities for sale and consumption. To clarify, content is not always traded directly as a commodity. The most significant aspect of this transition is that content can create value for market players in multiple forms even when it is distributed for free or is circulated without cost to the user. Thus, the mobile media and online practices of users described in the previous two chapters do not stand in strict opposition

to ordinary market strategies, nor do they subvert market logic. Instead, I suggest that they indirectly contribute to the generation of value in the content industry.

Further, I emphasize that new modes of distribution have emerged and have been invented partly in response to the needs of the ever-expanding base of users who access multimedia through mobile phones. An industry that complained bitterly about revenue loss due to piracy and unauthorized distribution of content in the late 1990s and early 2000s (when CDs and DVDs were the main media of distribution), has slowly adapted to the new scenario and has forged ingenious tactics to turn 'pirate' practices to its advantage, targeting consumers who generally participate in the extra-legal economy. Thus, the 'regular' or formal sector industry has learnt to extract value from content which is difficult to control and channel the moment it is available in digital form. I argue that contemporary debates on piracy need to be reoriented to take into account these developments, rather than assuming that pirate practices are necessarily contrary to market interests.

The chapter shows how the various practices of multimedia circulation amongst users described in Chapter 3 not only create social value within such user-groups, but also have the potential to be converted into commercial value at various points in the value chain. In particular, the chapter (1) emphasizes the slow transformation of markets, especially on app-based platforms to cater specifically to users on slower mobile data connections; (2) map the diverse economies of distribution and circulation to tease out the connections between small commercial entities such as regional distribution companies and global informational corporate entities; (3) show that these changes in distribution are both contributing to and are being shaped by informal consumption practices on ground; (4) highlight why studying changes in consumption practices would not be complete unless supplemented with an understanding of how the processes of distribution and circulation work and interact with each other; and (5) argue that these new forms of distribution of multimedia content commoditize the very process of consumption itself.

I present arguments based on interviews with representatives of vernacular and regional media content distribution companies, to revise and supplement the existing theories of digital economy. This discussion does not exhaust the entire range of economic activities

on these platforms, but only covers the rise of distribution as the most important avenue for value generation in media content industry and highlights its implications for theorizations on the digital economy.

# Content as an Information Good and Commodity

Several scholars have drawn distinctions between cultural products, media goods and information goods, while others use the terms interchangeably. Before the advent of digitization, the term 'cultural goods' was commonly used to refer to music, videos and other artistic products produced on a mass scale. However, in recent literature 'cultural goods' tends to be restricted to artistic products such as paintings, sculpture and such other objects on display in museums (Bekkali 2006; O'Riordan *et al.* 2011). In the work of the Frankfurt School (Adorno 1991), the terms 'media industry' and 'culture industry' were used to refer to the production of films, music and other forms of art for mass consumption, and this body of work emphasized the specificities of popular culture in the era of mass production.

In the era of digitization, we notice a change in the way the very same goods are discussed. While earlier studies focused on the shift in the medium of art works and other cultural artefacts with the coming of mechanical production and reproduction technologies such as print and photography (Benjamin 1936), recent studies acknowledge the shift in materiality (from analog to digital) as an important influence on the functioning of media goods in the economic sphere. Varian (1988) uses the 'Information, Communication and Entertainment' (ICE) grid to characterize information goods in this context. He defines information good as:

... anything that can be digitized – a book, a movie, a record, a telephone conversation. Note carefully that the definition states anything that *can* be digitized; I don't require that the information *actually* be digitized. Analogue representations, of information goods, such as video tapes, are common, though they will likely become less so in the future (Varian 1988: 3).

This definition stresses an important difference in information goods following the process of digitization. All digitized media goods such as music, film, text and images are classified broadly as 'information goods' (Varian 1998); more recently the term 'content' is widely used (Lessig 2004, 2008; Benkler 2006; Gensollen 2007; Doctorow 2008). This shift to digital from its analog variant and the possibility of circulation through the Internet opens up new avenues for value generation with respect to information goods. I elaborate more on this aspect in the following sections.

Several scholars have highlighted the informational and digital aspects of content (Bakos et al 1999; Benkler 2006; Lessig 2008), especially the non-rival nature of information goods. They are considered 'non-rival' because the conditions for their use are not governed by the principle of scarcity – the resource is not exhausted even though it is endlessly consumed. Non-rival goods have a high initial cost of production with marginal or no cost of reproduction, as they can be copied and circulated easily in their digital form. The copying and sharing possibilities offered by information goods shape and change the conditions under which content is traded and exchanged, thereby fundamentally reconfiguring our notions of intellectual property. Low or negligible cost of reproduction throws up challenges for those who produce content. The non-rival nature of content pushes the producers and sellers to invent new strategies to recover the initial cost of production and generate profit. The contemporary intellectual property battles reflect this conflict caused by the widespread use of digital copying and sharing technologies (which are now available to many consumers).

Sharing and copying by consumers enabled by digital technologies challenged the ways in which intellectual property was conceptualized around copyright during print era. When reproduction costs of information goods come down, it is difficult to make consumers respect copyright and not engage in reproduction and circulation of copies. This creates conflict of interest between industries based on copyright and consumers equipped with digital technologies. Scholars of law, economics and business studies (Doctorow 2008; Lessig 2008) have written about various ramifications of digitization for copyright-based intellectual property, and have suggested several solutions for these conflicts – especially

major revisions to copyright laws.<sup>52</sup> While conflicts resulting from copyright violation continue to some extent, a remarkable shift has taken place, in that the market has adapted to the changes wrought by digital reproduction technologies. In this discussion, I emphasize the digital component of multimedia content, and treat it as information good to study the various ways in which value is extracted out of it. In many ways, this change is significant for understanding the contemporary nature of capitalism reshaped by the digital infrastructure.

## Value and information goods

There is a certain ambiguity to the term 'information good' within the scholarly literature produced since the 1990s. In one of the earliest theorizations, Bates (1985) notes that as an economic good, information can be reproduced with little or zero cost, and that its consumption does not exhaust or reduce it or make it scarce for others. To demonstrate this, he distinguishes between 'probabilistic' and 'deterministic' values of information. He claims that information goods are mainly defined by their 'probabilistic value', or value to be realized in the future use of the goods, rather than by their 'deterministic value', or stock value of the good at the point of its production. For Bates, each use of information influences its probabilistic value, which keeps changing with each act of consumption. He shows how the functioning of information goods is similar to that of advertisements. Like advertisements, which influence the probabilistic value of commodities, information goods are also commodities which accumulate value on consumption. Bates' distinction between probabilistic and deterministic values is useful to explain the ways in which each act of consumption of media content generates value that can be realized as more opportunities are provided for consumption.

<sup>&</sup>lt;sup>52</sup> Significant among these alternate models is the idea of copyleft. As a social movement, copyleft emerged in response to conflicts around copyright ensuing from digitization. Techpioneers such as Richard Stallman projected free and open source software such as Linux as a solution to the copyright problems of the digital era. The movement led to the formulation of the creative commons licence – an alternative form of license that allows consumers to use, copy, share and tinker with digital goods, subject to certain conditions. Lessig (2004, 2008), through his work on remix and free culture, extended the core ideas of the open source movement to explain the impact of digitization on cultural goods. For details about this development see Kelty (2008).

Other scholars such as Gensollen (2007) discuss 'information' at two levels. The first is the information that is inherent in the content, such as a music track shared within a file sharing community; the second is the information on content or goods produced by virtual communities of users and markets, or both (what is commonly referred to as meta-data).<sup>53</sup> He explains different kinds of value generated by the interaction between the market and the users and makes a distinction between 'file sharing communities', 'experience sharing communities', and 'knowledge sharing communities online'. These communities, he argues, are not neatly separable but often coincide with one another. For him, value produced on goods includes information produced by users on a particular product in the form of user reviews and ratings, alongside the market information which improves or influences the chances of the purchase of a particular commodity. Gensollen argues that the log of information recorded by service providing platforms, such as purchasing history and preferences of a particular customer, are very crucial in determining the value for goods (like assessing the saleability of a product) although they do not have a direct bearing on its immediate price. He uses the term 'review corpus' to refer to information generated by users about a product on an ecommerce platform, and notes that it enlightens other consumers about the product. This added information increases or decreases the popularity of a particular product, influences its credibility, and saleability. Just by providing an opportunity for users to share their experience of a product and providing an option for them to write reviews, these platforms potentially extract value from the information that users produce. This echoes the Bates' (1985) notion of the probabilistic value of information goods which is realized with each future use. Thus, the value of the information good is amplified by each act of consumption, which has the potential to create more such opportunities for consumption. We learn from these studies how information enhances the value of any commodity, especially content. In the case of content, users have extra options for

-

<sup>&</sup>lt;sup>53</sup> See Morris (2012) on the music industry, who describes the process wherein an ordinary mp3 file becomes a saleable commodity because of the work carried out on it both by the culture industries and by users (who add to the value of the product, through their reviews and recommendations). According to Morris, without meaning to help the producers and sellers of products, users do so by producing information on products and thereby contributing to their saleability.

endless tinkering, modification and sharing, which extends the possibilities for value extraction beyond the ones provided by producers and sellers.

Following these insights, the question that I pursue here is: how are conditions for profitable exchange of content online created by the content industry with the arrival of digital infrastructure? Producers and distributors often have to vie with users to safeguard their sources of profit and regularly come up with new ways to distribute content. Otherwise, users who acquire these goods and possess sharing and copying technologies will invent ways to make them available wherever distributors are not present. The struggle of the media content industry (especially its distribution sector) lies in reaching as many people as possible in their varied social contexts. A careful study of the creation of these conditions by the markets will illuminate the modes of sociality<sup>54</sup> underlying the dynamics of value creation through digital infrastructure. It is this tension that is explored in this chapter.

## The lifecycle of digital multimedia content

Digital multimedia as conceptualized in this thesis includes two distinct media forms audio/recorded sound and video/moving pictures/films. These forms have separate lifecycles and historical trajectories (in terms of production and distribution) before they converged into multimedia following digitization. Although it is not necessary to provide detailed histories of these media forms to give an account of the social life of digital multimedia content, it is important to briefly discuss some aspects to better explain the processes of distribution since digitization and internetization.

I draw on Kopytoff's (1986) very important insight that commodity is just a phase in the larger 'social life of things' (Appadurai 1986), and not a fixed entity in itself. He acknowledges the cultural diversity of 'things' and insists that the commodity form too has its cultural specificities. In treating commodity as a phase in the biography of objects, he brings in the temporal element to its identity: '...the same thing may, at the same

<sup>&</sup>lt;sup>54</sup> Roberts and Joseph (2015) criticize social theorists who adopt a technologically deterministic viewpoint (using the term 'technological fetishism') to make sense the contemporary forces of capitalism, instead of underscoring the social relations that operate underneath complex technological grids.

time, be seen as a commodity by one person and as something else by another' (1986: 64). Appadurai (1986), elaborating on Kopytoff's approach, writes:

Let us approach commodities as things in a certain situation, a situation that can characterize many different kinds of thing, at different points in their social lives. This means looking at the commodity potential of all things rather than searching fruitlessly for the magic distinction between commodities and other sorts of things. It also means breaking significantly with the production-dominated Marxian view of the commodity and focusing on its total trajectory from production through exchange/distribution, to consumption (1986: 13).

As a commodity, multimedia content is monetized and distributed in multiple ways, but simultaneously offered for free in other contexts. Appadurai's idea of 'commodity contexts' and their link to 'commodity phases' helps illuminate the circulation of multimedia content in both online and offline contexts and explain their interconnection. I elaborate on this movement in and out of the commodity phase in the sections that follow. I argue that the insights provided by Kopytoff and Appadurai are very useful in understanding the social life of multimedia content and how the content industry both commoditizes and de- commoditizes informational goods in its many strategies of distribution. I underscore the importance of distribution in this exercise, as it is the process that has been reinvented several times by the content industries in their efforts to reach users at appropriate times and contexts.

### Distribution in the life cycle of content

Scholarly work on content distribution is scarce, compared to that on production and consumption, and is largely limited to the domain of films. However, content distribution right from the gramophone and cassette era has been much more than just distribution of films in various physical and material forms. It encompassed various genres of music, public lectures, educational and other kinds of material, catering to general public interest. With respect to film, distribution is generally discussed as just one of the four essential processes that constitute the film industry and market: production, exhibition (theatre spaces), distribution (mainly film distributors in theatre spaces across

cities and towns), and consumption. Very rarely does the discussion on film distribution move beyond theatre spaces or television broadcast. The other forms of distribution are often considered peripheral to the primary distribution in cinemas and box office collection.

Distribution as an activity and process in film industry is conventionally understood as distribution of films by various agents (called distributors) in different exhibition centres across cities, towns and villages. Distributors are the most important actors who link the processes of production and exhibition (theatre release). They are given exhibition rights (lease) by the producers and they take the film to different cities and towns for exhibition. Distributors have rights for exhibition only in the territories for which they have bought rights. The Hindi cinema industry, for instance, demarcates the whole of India into 14 circuits. Exhibition spaces are divided into A, B, and C classes depending on seating capacity and other facilities they offer.

Scholarly work on media and film in India does not often discuss either the economy or the cultures of distribution and exhibition, although much has been written on the cultures of capital (Athique and Hill 2007, 2010; Srinivas 2013) that constitute media economy in India. Scholars rarely study the distribution and circulation of films in different geographical circuits and across various kinds of exhibition spaces. Srinivas' work (2003) on the circulation of martial arts movies in B class exhibition spaces in Andhra Pradesh, and his discussions on movie going practices, women and respectability, are among the few works that deal with distribution. Informal and shadow economies of distribution have received scholarly attention (Manuel 1991; Liang 2005; Sundaram 2010, 2013), but the other economies of distribution outside theatrical circuits have not gotten the scholarly attention they deserve.

As mentioned above, content distribution has broad scope and range, and film and film-related content distribution in various forms and formats is only a part of the larger economy. The usual tendency is to discuss content distribution in connection with specific culture industries (films or music), and not as a commercial and social process. Media studies scholars focusing on format (rather than content) have examined this phenomenon. Manuel's work (1999, 2013) on audio cassette circulation in North India, and Hughes' work (2007) on gramophone records, are the only studies that discuss

content distribution beyond the film or music industries. By concentrating on format, both studies cover the wide range of content distributed in one format. The technological focus of these studies offers possibilities to discuss content as a commodity that is tied to many culture industries at once. Building on this small body of work, I propose here a syncretic way of looking at distribution – as a process that is independent and yet common to several media and culture industries. I derive this approach from the fieldwork, wherein I observed that content distribution has an independent existence which operates and functions across media industries.

Distribution, ever since the arrival of VHS, has a broad scope, and has surpassed the temporal constraints of film distribution and exhibition. As an economic process it encompasses various kinds or genres of content. The surplus generated out of the process of distribution is often redirected into the production of content of various types. Many distribution companies that started in VHS era (for example T-Series cassettes) have vertically integrated their businesses, have diversified and expanded, and have ventured into production. Some of these companies manage all aspects of production and distribution except for television broadcast. The research available on the market and the modes of its functioning is very scanty and is often spatially specific.

Since digitization and internetization, distribution of content has seen innovations at multiple levels: in forms and formats and business strategies. It is important to understand these changes because they are connected to the new modes of consumption via mobile phones discussed in the previous two chapters. Our discussion of consumption is not complete until an account of distribution is provided and the connections between the two phenomena are neatly drawn out.

# **New Age Practices:**

# Content Production, Distribution and Consumption

To illustrate the main questions that frame this chapter, I first present the case of the Kannada film *Lucia* (2013), which shows how 'new age' distribution mechanisms have changed the way we think about content and its value as a commodity. Pawan Kumar, the film's director, is an important figure in contemporary Kannada cinema, known for

his unconventional choice of topics, and modes of filmmaking, and novel marketing strategies. His strategies, especially with regard to the production and distribution of films, indicate the shift that is slowly taking place in the regional content and media industry as it reinvents itself on the new media and web infrastructure. The novel way in which *Lucia* was made and distributed illustrates this shift.

Pawan Kumar amassed the capital needed to produce the film by crowd-funding<sup>55</sup> through a blog he created for the film. Both on the blog and on his social media pages, he invited the interested audience to make small contributions towards the film, and in return promised the contributors free online streaming of the film on completion. The idea emerged as a reaction to the apathy he faced when he approached top actors and film producers with his idea for the film. A young aspiring director, he already had a successful debut film to his credit, but that was not enough to attract financing for his new film. He released snippets and video tracks of songs on YouTube and asked viewers to contribute if they liked the idea. He used his social media accounts to promote the content and relied on the known network to generate the initial corpus.

Once the film was completed, he resorted to the same method to market and distribute it. Hype was created before the release of the film both via social media pages and traditional media coverage. The film gained entry into international film festivals and won a few awards, which in turn generated the publicity needed for the commercial success of the film. The pre-release content in the form of video tracks of songs and video snippets went viral. FM radio channels frequently played the songs and they

-

<sup>&</sup>lt;sup>55</sup> Crowd funding is an Internet mediated fundraising strategy that might be used by any venture that requires a substantial sum of money. A person in need of such money to start a project proposes the idea on a web platform and opens it up for public contributions. Sometimes the idea is circulated among the prospective investors. The platform on which the idea is proposed helps the person searching for funds to mobilize it through various sources. Interested investors usually donate in small denominations directly to the person promoting the project. In crowd funding, the risk is distributed and the loss (if it occurs) is negligible for any individual if the venture does not become successful. Crowd funding is also done for non-commercial activities which require huge amounts of money.

became hugely popular, and could often be heard on mobile phones and MP3 players while traveling in local buses and trains of Karnataka.

For the distribution and exhibition of film, Pawan Kumar took some important steps to circumvent piracy and illegal distribution. The film was released online with free streaming options for its crowd funded users, and offline in cinema theatres simultaneously. The box office release was complemented by options for high quality streaming of the film online for 500 Rupees (with a cap on number of streaming attempts). The film also saw global box office release in major European and American cities at the time it was doing well in Indian box office, especially in Bangalore. Kumar entered into contracts with online distributors who already had the established video hosting service online such as Video Girmit.<sup>56</sup> There were also individual online distributors who became part of the production team and made good sales. The director's plan was to deliver the film to those people who could not view it in theatres but were still interested in watching it. Without this option, users who did not have access to theatres screening Kannada films would have relied on the file sharing pirate communities to source the film. With streaming options available online, the director was able to tap into this section of his audience and generate substantial revenue out of them. He requested viewers on his Facebook page to respect the labour spent on creating the film, and encouraged them to stream the film online if they could not go to the theatre. He tightened the security on the content by making sure that counterfeit streaming and download options on the web were taken down by the hosting platforms through constant vigil, thus regulating the appearance of his film content on the web. He took several precautions to restrict the film to the authorized channels of distribution both online and offline. The director sent mails to his online audience (those who streamed the movie through a video link that they bought from the director) on the menace of piracy, pointing out that it destroys their source of income.

Despite his best efforts, copies of the movie were available in unauthorized networks less than a week after its release, in fact within 72 hours. The movie was available on some college campuses, circulating mainly through student networks. In this instance, the

<sup>&</sup>lt;sup>56</sup> Video Girmit is a Kannada video content hosting web platform that has been around since the 1990s. It is well known particularly among non-resident Kannada film aficionados.

movie was not circulating through regular pirate networks of video CD or DVD rental shops which download the movies, burn it into DVDs and illegally distribute it through other means. The director recognized that copies of his film were being circulated not through profit-driven pirate channels but by individual users (his team tracked the IP addresses of the users trying to download the movie for free). The online pirates were blamed for disrupting the authorized channels of distribution for no personal gain.

The market for Kannada films, however small compared to Bollywood films, is still a large one with viewers spread across the globe. While his meticulous efforts reached the audience outside Karnataka and India successfully, there was a substantial audience base which wanted to watch the film in the inner recesses of Karnataka, especially people residing in small towns and villages. The publicity the film gained generated an audience even in small towns and villages. But these viewers did not have the same options enjoyed by those in cities, such as unlimited Internet access for individual streaming of the film, or access to theatres. The film was not promoted by the distributors in small towns, as it attracted only a niche audience and they could not cover the costs of exhibition. This section of audience had to rely on the illegal and unauthorized copies, mainly circulated through college student networks and small DVD rental shops. The marketing strategy developed by Pawan Kumar and his team mainly targeted the audience who stream the content online. The team was able to transcend the geographical constraints faced by small production houses or independent filmmakers regarding distribution and were able to reach out to the global audience, successfully capitalizing on the demand for new age vernacular cinema; but they fell short when reaching out to the inner pockets of Karnataka, despite the presence of a niche audience. The challenge that content industry faces today is one of reaching out to the audience who have a demand for content in their particular social contexts.

This case illustrates how the content industry can expand the audience base in multiple ways using digital media infrastructure. It also shows that the regional language film industry, with its limited resources, may not be able to exhaust the entirety of this base despite adopting new marketing strategies and reinventing itself on the new media infrastructure. Thus, the problem of distribution faced by the Indian film industry is to reach the audience where there is demand for the content. While piracy on digital infrastructure plagues the content industry and hinders the growth of its revenue, the

same infrastructure has created new possibilities by reaching out to the audience who are interested in the content produced. The strategies that were successful in reaching the global audience were inadequate when it came to the viewers located in an altogether different techo-social context. Such viewers, as we saw, relied on unauthorized channels and sources to procure and consume content. The controversies that grip the content industry and create conflicts in the market can be more fruitfully conceptualized as 'demands for content' (in contexts where regular market is not yet present). Hence, unauthorized channels which carve out a space in the gap created by market become important. The unauthorized circulation that takes place, especially through student networks, does not happen with the intention of making profit but in order to gain access to a highly valuable entertainment commodity.

This case illuminates the novel modes of distribution that have sprung up in response to the growth of digital technologies and their effects on the old modes of distribution. It also points to the nature of the new audience that has emerged due to the presence of these technologies, such as student networks which are involved in unauthorized circulation primarily to access content. Significantly, the networks of circulation that have emerged while sharing a movie like *Lucia* are not the same as the old pirate networks which circulated media goods for a profit. The reason I have discussed this example at length is to show how online modes of distribution contribute to the market for content.

Like the students involved in the circulation of film *Lucia*, digitally marginalized users either download content or sideload it through mobile phone shops. The sources for both these modes are most often YouTube and other web platforms. The content that is available for free is also sold, which is the most intriguing aspect of multiple distribution mechanism. The same consumers who download or stream content free of cost from YouTube and other sources, may also pay to obtain ringtones of their favourite songs. Since the ringtone subscription has limited validity (usually of less than a month), users opt to subscribe over and over again to the same tones. The cost of a caller tune subscription is insignificant, but the sheer scale of these subscriptions constitutes a substantial source of revenue for the media content distribution companies. Moreover, the offline peer sharing practices of users indirectly benefit these companies, as they add to the popularity of content which in turn creates opportunities for distribution or sale in other contexts.

The story of distribution I am trying to capture through the example of Kannada distribution companies in Bangalore is largely representative of the distribution of content elsewhere in India. There has been a similar spurt of growth of Indian regional language content channels on YouTube, through channels aimed at niche regional vernacular audiences such as Sabri and Santhali. It is again small distribution companies which are involved in producing as well as distributing this content. In addition to DVD sales in their respective territories, YouTube channels are the main sources of revenue for such small distribution companies. The amount of content that these channels are uploading on web platforms such as YouTube, Hungama and others is many times more than what a single individual user can do. All of this content is neatly organized by these companies, whose employees work to ensure that their target users find the right kind of content (i.e., through search engine optimization). A description of these new modes of distribution becomes important to understand the connections between regular markets, extra-legal modes of distribution, and social modes of distribution such as exchange and sharing of content among user communities both online and offline. In the next section, I describe the processes of extraction of value out of content.

# Extraction of value through property rights

The journey of content begins once it leaves the production house, when producers sell different sets of rights to different kinds of distributors. The processes of value extraction and profit generation through the sale of content begin from this point. The sale of content as an intellectual property and informational good involves the management and protection of these various kinds of rights (of distribution, circulation, and use). Usually, box office rights, television rights, DVD rights and online rights (which came into existence after Internetization) are sold for films and other kinds of audio-visual content. Often, different industry players manage different kinds of rights. For instance, box office rights are bought by distributors who then exhibit the content in cinema theatres in different towns and cities; TV rights are bought by television channels (both public and private); DVD rights are bought by small distribution companies; and online rights sometimes rest with such distribution companies, or may be retained by the production houses and producers. Here, I focus only on DVD and online rights, which have proved highly profitable for the distribution companies since the 2000s.

The content industry has become highly profitable and successful since digitization. With the horizontal integration of the content industry, the exclusive divisions mentioned above (in the domains of exhibition and distribution) are no longer present. Many distribution companies which used to buy DVD and online rights have been able to venture into production. They owe this success partly to online and new modes of distribution such as ringtones. TV channels also invest in the production of content (sometimes in collaboration with production houses and distribution companies which deal with DVD rights, sometimes by themselves). Such changes within the film industry have been well documented by Athique and Hill (2010).

Both film and non-film content are released online by distribution companies on platforms such as YouTube and other websites, in some cases for free and in others for a token amount. A few vernacular distribution companies such as Sangeetha Cassettes have adopted the iTunes model of online distribution of content. Sangeetha Cassettes, who are mainly involved in music album distribution, have developed a business model in which users can stream a high-quality song for as little as Rs. 7. Such distribution mechanisms are attractive to customers, as they do not have to pay for the entire album when all they want is one song. Content is also made available for purchase on many online content hosting platforms such as Hungama. Many content distribution companies run their own YouTube channels, which supplement offline physical sales in the form of CDs and DVDs. In addition to this, the caller tunes business and Corporate Ring Back Tone business (CRBT) have emerged as new modes for the distribution of content. Recently applications such as Google Movies on mobile phone platforms provide users the option to rent or buy individual video and audio content such as films and music albums.

### Online rights and YouTube channels

The early years of YouTube were marked by amateurism and by the proliferation of community video and user generated content. As a web platform, it had a Do-It-Yourself (DIY) culture in its initial years. Scholars studying YouTube have used various metaphors

<sup>&</sup>lt;sup>57</sup> For more information on the iTunes model of distribution of content and why it has been successful, see Biersdorfer (2003), Gasser (2004), and Arditi (2014).

to understand its structure and function. The edited volume *Video Vortex Reader: Responses* to YouTube (2008) explores YouTube as a platform, a community, an archive, and finally as a commercial venture, and elaborates on the significance of each. The contributors to this volume view YouTube as an extension that integrates of older media forms, especially television, and eschew digital exceptionalism. Such an approach is compatible with the idea of media convergence discussed in Chapter 1, and is helpful to sketch out the detailed interconnections between new media and other old media forms.

Ever since Google acquired YouTube, it has steadily progressed in the direction of commercializing the platform while retaining its community features. While YouTube retains the older flavour of user generated content and amateur videos, we have to pay attention to the latest developments wherein the platform allows its users to commercialize and commoditize content. The other significant development to note is the entry of commercial players and large companies using the platform. Snickars and Vonderau (2009) comment on this development:

... the peculiarity of YouTube ... lies in the way the platform has been negotiating and navigating between community and commerce. If YouTube is anything, it is both industry and user driven... The dialectics of commerce and community, copyrighted material and user-generated content, and the way video is being distributed all relate to economic features of so-called emergent social-network markets (2009: 11-12).

Lessig's (2008) idea of hybrid economies refers to the intermingling of commerce and community, a trend that is becoming a regular feature in many web enterprises. The community spaces on the web are slowly changing into commercial ventures of a global scale. Similarly, Andrejevic (2009) observes:

... in fairness, YouTube represents a hybrid, or perhaps a convergent medium, one in which familiar music videos and copyrighted movie clips rub shoulders with original user-generated content and with content that combines original material with copyrighted material, such as user created videos that include popular songs as part of their background or soundtrack, or mashups of copyrighted audio and video material (2009: 406).

In a similar vein, Potts (2008) favours a social network and market economy approach to study recent transformations in the creative industries, and attempts to understand how users on different web platforms co-create value from content. Keeping in mind the dialectics of the platform highlighted above, I introduce an additional element to the current understanding of web platforms and the sociality that anchors them – the interconnections between online and offline distribution modes (including extra-legal ones), and how values produced in one domain are realized in the other.

In addition, big media empires have been at the centre of discussions of commercialization and monetization of videos on YouTube, whereas the presence of smaller commercial entities and regional vernacular distributors has not received as much attention. Moreover, the emphasis in many studies of YouTube has been on the platform and community itself – the form and aesthetics of online video have been studied more than other aspects such as the economics. Because commerce on YouTube-like platforms depends on users and their activity, users have received most attention. Studies of content producers, industries, and their reinvention on new media platforms such as YouTube have not yet appeared. The present research draws attention to a new trend wherein content distribution companies have their own YouTube channels, and offer subscriptions similar to individual users on YouTube. YouTube channels, over time, have become a very important source of profit for distribution companies. In the following sections I elaborate on the value extraction mechanisms of distribution companies through YouTube channels.

#### Distribution companies as users on YouTube

In response to recent techno-social changes, audio and video content distribution companies have changed the way they market content. As a content hosting website, YouTube (set up in 2005) started providing options for monetization only since 2010, after which commercial players began to enter this platform. Monetization is a process by which users who host content can reap profits by giving permission for YouTube to display ads. As an amateur video archive, YouTube was free of cost for users; its revenue was generated solely through advertising in the beginning. Later, while the content was

still made available to users for free, YouTube saw advertising as a perennial source of profit. The platform has been revised and updated in ways that enable advertising revenue to be generated both for platform owning corporation and its users. The evolving relation between advertising and web platforms needs to be explored in depth, although research on advertising in general is not new. Andrejevic (2009) only briefly mentions online advertising in relation to YouTube functional dynamics.

YouTube provides its users options for narrowcasting through individual YouTube channels by default. As a form, this is conceptualized like a television channel. Once users start uploading video or audio content onto their channels, they have to simply enable the monetization option (see Figure 10) and simultaneously register and activate their Google AdSense account (see Figure 11) to start earning revenue from the content. Once the monetization option is enabled for the YouTube channel, the user's Google AdSense account will be linked with that particular YouTube account.

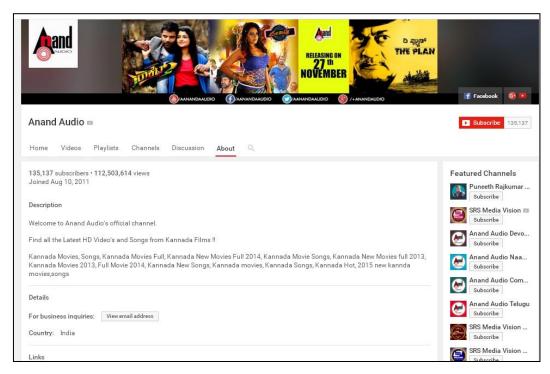


Figure 8. Home page of a Kannada distribution company YouTube channel



Figure 9. Full length movie upload by a Kannada distribution company

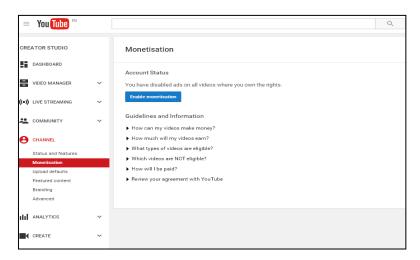


Figure 10. YouTube channel monetization

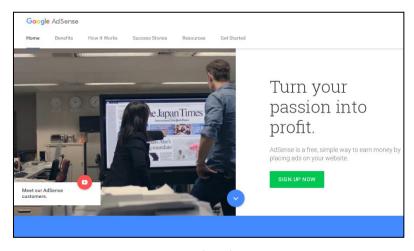


Figure 11. Google AdSense account

With a fairly simple interface and detailed step-by-step instructions to guide the navigation, any user can enable this option for the content they host on YouTube. Once this option is enabled, Google displays relevant ads to the viewers based on the details

provided by them in their profiles. Google pays the users (mostly in dollars or euros) when videos posted gather a certain amount of watch time, as determined by real time analytics. (I elaborate more on this relation between time and consumption in the next section.) Google shares 55 per cent of the income generated through ads with the user who has uploaded the content and enabled monetization. The revenue is directly proportional to the popularity of the content.<sup>58</sup>

Here I have discussed the commercialization of YouTube in detail because this is increasingly one of the main modes of distribution for many distribution companies. Also, YouTube videos hosted by these companies, especially in vernacular languages, are the most important sources for downloads for both the digitally marginalized users and mobile phone shops (mentioned in the previous two chapters). For a typical viewer visiting YouTube, the distinction between a distribution company and an individual user is not always evident. Google (which owns YouTube) also does not make any distinction between an individual user and a company, nor does it treat them differently. Production houses in India also frequently upload trailers of movies on YouTube. Thus, big music and film industry players are realizing the potential of YouTube and the possibilities it offers to overcome the geographical constraints to content distribution. Many individual companies and Multi-channel Networks (MCNs) collaborate with YouTube under the 'YouTube Partner Program'. Shemaroo (see Figure 12) is one such network which directly collaborates with YouTube and in turn invites smaller distribution companies spread across India to collaborate with them. Shemaroo mediates between YouTube and

\_

<sup>&</sup>lt;sup>58</sup> The earlier revenue model was based on the number of views (counted by the number of clicks) – the more views a video got the more revenue it generated. Currently, it is based on watch time. Watch time is the amount of time a viewer spends on video after clicking it. YouTube decides the popularity of a video not by the number of views or subscribers, but by calculating the amount of time spent by a user watching the video. This model is particularly beneficial to those who upload lengthy videos that have the potential to become popular. Some of the distribution companies I spoke with upload full movies, and when users stream the entire movie on YouTube it translates into direct increase in the watch time.

<sup>&</sup>lt;sup>59</sup> Even trailers generate a substantial amount of ad revenue. Earlier trailers were created to attract viewers to watch films. However, with YouTube, they are not just freebies that lure viewers to download or view the content but are a direct source of revenue.

these smaller distribution companies by managing their content. Sri Ganesh Video (one of the distribution companies covered in this study) has a contract with Shemaroo. Shemaroo oversees all their operations right from content to revenue management. Small players such as Sri Ganesh Video get a share in the total ad revenue generated by the smaller companies.

Keeping in mind the focus of this thesis, I discuss only distribution companies that upload video and audio clips on YouTube. Many audio distribution companies emerged during the cassette era in the late 1960s and early 1970s, and video distribution companies were the product of VHS era in the mid and late 1980s. These companies mainly distributed films as video tapes after their exhibition in cinema theatres. With the coming of CDs and DVDs the business flourished, and the late 1990s and early 2000s were a golden phase for this kind of distribution. Viewers, who missed a film in the theatres and subsequently on television, could consume films in this mode. CDs and DVDs also had a value for collectors, and were one of the main sources of entertainment once the film was out of exhibition theatres.



Figure 12. Homepage of a multichannel network, Shemaroo, on YouTube

Distribution companies now buy video rights (total video copyright which also includes online rights) for films, film video songs and music albums. Video rights are the cheapest of form of copyright.<sup>60</sup> For Kannada movies, there are two major companies operating in

771

<sup>&</sup>lt;sup>60</sup> The other kinds of distribution rights include box office distribution rights and satellite television distribution rights.

this domain – Anand and Ganesh Video. Movies that do not succeed in the theatres often do well in this kind of market. Online video distribution further extends the shelf life of content, which would otherwise disappear. The market for DVDs and CDs is rapidly dwindling, and industry people predict that distribution through this medium might soon become unprofitable. Companies involved in distribution see a future market only for online (YouTube) and other forms of digital content. Their subscriber base is huge and is often spread across the world. The copyright issues online are directly and automatically handled by CMS (Content Management System provided by Google), reducing their efforts of maintenance. Some companies have direct contracts with YouTube, while others have contracts with Multi Channel Networks (MCNs). The distribution companies having contracts with MCNs get their share from the ad revenue quarterly from those MCNs. These just send the copy<sup>61</sup> to be uploaded on to the channel of MCN, which takes care of the rest of the operations and management.

Distribution companies do not upload all the content for which they have acquired rights on YouTube, but only host the most popular content. They buy both Internet and video rights for the movies, and provide HD videos of latest film songs, old film songs, films, and juke box (audio) for particular films. Video itself has diversified into multiple commodity forms. Short scenes and video songs extracted from the film are uploaded as separate pieces of content. These commodities produce profit independently, without any reference to the film that they come from. Every trailer or snippet that is put on YouTube generates profit – the shorter the duration, the better its chance for getting streamed, especially on phones with the slow Internet connections of mobile phone data packs.

In addition to these options for distribution, YouTube recently introduced the offline video feature for users who are on slower mobile data connections and who cannot always stream videos. This option is seemingly targeted at users who access the Internet mobile data packs and who do not have WiFi facility near them. Users who are the focus of this thesis are the target group for such features. Thus, we can see how markets and

\_

<sup>&</sup>lt;sup>61</sup> Once the distribution company buys the rights to the digital video, it is converted into '.mov' file format, and later into MPEG2 or MPEG4 formats before it is uploaded onto YouTube or burnt on to DVDs in house.

web enterprises are slowly transforming to cater to the increasing user base which only has mobile data connections.

As noted, ad revenue sustains YouTube content distribution. The presence of distribution companies on YouTube and other web platforms also means they are capitalizing on a user base that was unavailable earlier due to geographical constraints. It is next to impossible for small distribution companies such as Ganesh Video to expand their business outside India. Here, the model of ad revenue and content is not any different from how other media goods such as news are sold. As many distributors acknowledge, there is still a vast user base which functions outside the market. So these new avenues for distributing content offer them a chance to reach such potential customers, and they are invested in innovations and strategizing to do so. In these new modes of distribution piracy and other such 'ills' do not eat up a share in the market for content. According to many of these distributors, this modality helps them to increase sales. For example, Anand Audio capitalizes on the popularity of their video and audio content (both by online and offline circulation) through their caller tune business. Their YouTube channels are where they interlink various modes of distribution (see figures 13 and 14) to help users access their content in various ways.



**Figure 13.** Content on other web platforms linked from YouTube

#### Caller tunes, ringtones and other forms of contractual distribution

Many distribution companies are not discouraged by piracy and the resultant market seepage. They revise their business models and make necessary adaptations to suit the technological changes. For instance, Anand Audio is the first company in Karnataka to introduce caller tunes. They now have collaborations with nine telecom service providers, including telecom giants such as Airtel, Vodafone, Idea and others, to provide such content. Currently, caller tunes and ringtone business contribute close to 50 per cent of their revenue.

Another avenue for distribution is through tie-ups with mobile phone companies such as Micromax. Micromax preloads their mobile phone devices with some content before sale. Anand Audio sees the possibility of selling the content in this mode as the sale of physical media forms (CDs and DVDs) tapers off in future. They are trying to get contracts with other companies which manufacture digital devices such as stereo players, tablets and other hardware – an option which they have not fully explored yet.



**Figure 14.** Links to caller tune and ring tones from YouTube

Besides their YouTube channels, which contribute close to 15-20 per cent of the revenue for most distribution companies, many companies have tie-ups with other content providing websites such as Saavan and Hungama, which contribute nearly 30 per cent of their revenue. Content on these websites is often charged. Some distribution company owners who were beset by piracy only a few years ago, are now very optimistic and

confident that content will continue to sell despite being available to users for free. <sup>62</sup> They have realized that they only have to move into those areas where there is a demand for content to make money. They work out new business models, which often mean competing with pirate networks and mobile phone shops. Some are aware of the new modes of exchange and storage through pen drives and SD cards. Anand Audio, for example, is thinking about selling licenses to mobile phone shops [Mobile Music Exchange (MMEx) as the company users call it], a new business model which will license mobile phone shops to sideload their content. One of the top management personnel of Anand Audio commented on his understanding of the market in this way:

I am aware of pirate distribution of content through mobile phones, but I am not bothered by it. For me, content is the king. I just have to make sure it stays right at the top and reaches those who require it. With the new technology, I need not reach the entire market out there for the content I own. Even 10 to 20 per cent is enough to sustain me in this business with good profit margin.

In these Internet-based modes of distribution, distribution companies have to ensure that the content is visible on the first few pages thrown up by any search online, in order to sell. This requires constant work in terms of updating meta-information. The business is no longer about burning CDs, packaging them and sending them off to outlets. The current mode of distribution requires more technical skills; hence there is a need for a different kind of work force which can manage content in its multiple digital forms.

Many distribution company owners speak about the virality and the popularity of content. My interlocutors in the business claimed that piracy and other illegal modes of exchange work in their favour, rather than reducing their revenue share. The more popular an audio or video becomes, the more the chances of reaping profit out of it, either through caller tune business or by selling the same content for preloading on new digital devices. The focus often is on making the content popular rather than controlling

\_

<sup>&</sup>lt;sup>62</sup> Anand Audio was at the forefront of the fight against piracy in the Kannada film industry a few years ago. However, the company is now not concerned about copyright violations as it was in the late 1990s, even though the owners still maintain a zero tolerance policy towards piracy.

its circulation. Hence piracy and unauthorized modes of distribution have proved indirectly beneficial for the business.

Distribution company representatives say that they are only tapping 10 per cent of the video market for films, once the content is out of cinema theatre and television circuits. They continue to vie with pirate networks and other modes of distribution (downloads and sharing). Their profits saw an increase of 300 to 400 per cent every year and the business flourished in the early 2000s. Even to the present day, they are making 200 to 300 per cent profit. Now, the only people who buy CDs and DVDs are 'lower class people' who visit the outlets. These companies also cater to video shops across small towns and villages of Karnataka in – mainly to honour the business relationships established since the 1990s, and to serve the CD and DVD market still thriving in the hinterlands.

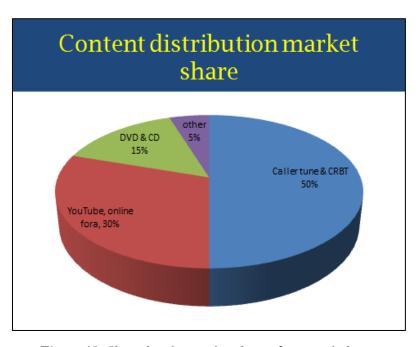


Figure 15. Chart showing market share of content industry

# **Consumption Commoditized**

User interactivity and dynamic web content marked off Web 2.0 from the earlier version of the Internet. In the first few years of grappling with its features, the idea of 'prosumerism', 63 drawing on Toffler (1980), became very popular in defining the characteristics of Web 2.0. Although prosumption was not unique to the Web 2.0, it became an important concept to characterize the undercurrents of the economic activities on the web. The idea that users who come to consume informational goods end up offering their 'free labour' in producing them puzzled many scholars, leading them to explore the ways in which value was being extracted by the capital in the informational era. If prosumption is regarded as the defining feature of digital economy, I want to draw attention to simple consumption as a process and how it is generating value for the content industry. Digitization fundamentally changes the material nature of the commodity form of the content. Trailers, video snippets, songs extracted from a film are uploaded on YouTube as different commodities with a potential for monetization, which was not possible in the analog universe. A single piece of content is broken and multiplied into many commodity forms. As non-rival information good which does not exhaust with consumption, content creates value in its fragments, mirrors, and copies. Social value generated by sharing and exchange; value generated by extra-legal modes of distribution; and value generated by plain consumption itself, are all ways of value production that add to the existing corpus of value that content distribution companies amass in the process of selling content in various contexts. In this section, I give a brief overview of the dominant theoretical frameworks of prosumption, free labour, and exploitation of user-generated content that have been employed to theorize digital economy and informational capitalism, and then challenge these arguments based on insights gleaned from my study of content distribution companies.

\_

<sup>&</sup>lt;sup>63</sup> Toffler (1980) introduced the word 'prosumer' which is the portmanteau term for producer and consumer. He claimed that the processes of production and consumption were not separate at first, but only became so when societies embraced specialization and division of labour.

## From prosumption to extraction of value based on property rights

There is a vast body of literature available on prosumption, free labour, co-production, collaborative production, and co-creation in the informational environment. Much has been written about software production, distribution and the emergent new form of capitalism in which such processes were unravelling, and here I refer to only a few key interventions.

Ritzer and Jurgenson (2010) argue that prosumption is not unique to capitalism driven by information and communication technologies, and that it was always present in some form or the other in the earlier avatars. But they do not completely erase the difference that earmarks the current form of prosumption from earlier ones. They make a distinction between consumers who served themselves with increased automation (filling fuel tanks themselves at petrol stations, or being tellers in front of ATMs, or serving their own food and cleaning up after themselves in fast food restaurants) and the consumers on Web 2.0 who actively participate in the production activity. Similarly, Bruns (2007) refers to 'produsage'—another portmanteau term combining production and usage—to understand collaborative content created by users on web platforms in the form of software, video, or a piece of music. Some earlier understandings of collaborative software production through open source and free software movements characterized the phenomenon in terms of 'gift economy'. Barbrook (1998) visualized collaborative software production as a model of free giving outside the market space, unregulated by market relations, and termed it as a 'hi-tech gift economy'. He goes to the extent of classifying the free and open source movement as an example of 'anarcho-communism' – a new form of communism that with the potential to ultimately challenge capitalist hegemony, the ideology of production and the exploitation of the labour. He maintains that capitalism will always attempt to commodify the products of the gift economy (of which Internet<sup>64</sup> is a good example) and privatize the commons created by the community by means of intellectual property rights. Perhaps reflecting this prognostication, if we closely follow recent developments on web platforms, we notice that there has been large-scale entry of market players.

<sup>&</sup>lt;sup>64</sup> Most Internet protocols that define the Internet as we know it today were the products of collaborative labour among many coders spread across the world.

Several scholars take a critical view of such enthusiastic proclamations about prosumption. For instance, Terranova (2000) critiques Barbrook's conceptualization of the new economy in the paradigm of gift because those who participate in such processes of production willingly make use of resources provided by both market and government (in terms of infrastructure of the Internet, funding, and knowledge resources). She is also cautious against overgeneralization and the hype of prosumerism discourse:

The Internet does not automatically turn every user into an active producer, and every worker into a creative subject. The process whereby production and consumption are reconfigured within the category of free labor signals the unfolding of a different (rather than completely new) logic of value, whose operations need careful analysis (2000: 35).

Terranova's (2000) work draws attention to the role of 'free labour' in Internet culture and cultural economy in general. She understands Internet as a part of the larger network society, animated by techno-cultural labour which engages in constant production of value. For her, '...free labor is the moment where this knowledgeable consumption of culture is translated into productive activities that are pleasurably embraced and at the same time often shamelessly exploited' (2000: 37).

Building on Terranova's insights, Arvidsson (2009) makes parallel connections with Benkler's (2006) idea of social production, arguing that customer coproduction is part of a general economic phenomenon since the arrival of Internet. For Ardvisson, the Internet is riddled with contradictions – the initial hope of the Internet as a community has been thwarted by the arrival of the capital, but these two forms of sociality are not just in contradiction. Examining this tension, he suggests that community and capital feed off each other and rely on each other on the Internet. He illustrates this point through the example of Netscape (which was the earliest browser) and its later appropriation by the capital. The structure of the Internet allows for collaboration, but

<sup>&</sup>lt;sup>65</sup> Arvidsson (2009) uses this to model to develop his argument on ethical economy, drawing on Lazzarato (1996) and other Italian Autonomists – especially Lazzarato's understanding of the relationship between production and consumption wherein the consumer is actively involved in the creation of the product.

capital enters this structure and commoditizes and fortifies the products created through a non-capitalist structure. This process of commoditization points to one dimension of the complex workings of digital capitalism.

In his work on user generated content, Hesmondhalgh (2010) critiques the 'free labour' argument. He resists overarching generalization and an ahistorical reading of digital technologies, and is more sensitive to the continuities between old and new media – especially the socialities within which they are embedded. He suggests that the concept of exploitation of free labour by capital is inadequate to describe the association of capital with free labour. He subscribes to the Autonomist understanding of labour, something that is willingly given away yet is captured by capital. Following this line of his argument, we might claim that exchange on web platforms such as YouTube is a mutually beneficial arrangement between consumers and the market entities that capitalize on the value created by consumers.

The studies discussed in this section are very useful for uncovering the infrastructural contradictions of the Internet. These scholars are sensitive to the media histories of digital objects and bring out the connections wherever necessary, in addition to highlighting the novelty of the medium. They rightly point out the contradictions inherent in the structure which allows for both sharing and free dissemination, but at the same time delimits free dissemination when capital enters the structure and closes these options in the name of intellectual property rights.

Much of the literature on user-generated content, free and open source software, and free and cooperative labour show how consumers create value for capital. But the scholarship is still unable to capture the entry of commercial players on the web as they vie with regular users on web platforms, changing the overall dynamics of their functioning. We have sophisticated critical accounts of prosumerism and user-generated content and free labour, but what is missing in this literature is how a great number of consumers (I stress here consumers rather than users) add to the value of content on a platform like YouTube (that is designed structurally for interaction and contribution), without contributing labour. In the next section, I explore further the consequences of the entry of commercial players into what were earlier user-driven platforms.

### Active audience or passive user?

The idea of 'active audience' - an audience that participates in the creation of value rather than just passively consuming content, which is often claimed to be peculiar to the digital medium (Livingstone 2003) is no longer sufficient to characterize the range of users on web platforms. Most users of web platforms are also passive audiences – i.e., they do not contribute actively to the production by creating or uploading their own content. Moreover, the digital medium is undergoing a process of mass mediatization with the arrival of commercial entities on these platforms. Web platforms such as YouTube have not remained an avenue for creative digital users alone, who have their own content to share with the rest of the world. Such platforms are populated by commercial players such as distribution companies (discussed in this chapter), which are interested in running a business on web platforms. Likewise, there is a large user base which is just interested in consuming, downloading and sharing the content put up by such commercial players on web platforms. Such users are 'passive' in the sense that they do not actively contribute to the creation of the products they consume, tinkering, remixing or creating new content out of what is available on these platforms. This user base is very similar to the digitally marginalized users discussed above, in the sense that it is mainly interested in accessing the popular media content via the Internet. But what is important to notice here are the ways in which the passivity of this user base is capitalized on by distribution companies to create a source of profit which did not exist before. The best examples are the monetization of clicks, or more recently of watch time on YouTube, which is now a significant source of revenue for distribution companies as discussed above. However, this is not a unique business strategy but it is very similar to how TV advertisements function. But with the advent big data and data analytics, the market has real time and accurate data on user traffic, which enables the generation of value based on user response.<sup>66</sup>

Contrary to optimistic proclamations about cyber communism or anarcho-communism or tech emancipation and liberation in relation to free software production (as Barbrook

-

<sup>&</sup>lt;sup>66</sup> This should not be considered 'free labour', or labour willingly offered by the customers, because in this case it is not production in the form of meta-data or creative co-production of content that enhances its value. Here I am concerned with the process of consumption itself, especially the passive kind.

and others had predicted), this discussion suggests that most of the web today is actually being subsumed by capital and its myriad projects. Capital is both aided and subverted by users, which is the most interesting feature of this development. This argument is not entirely new, as I have shown above. Several scholars have pointed out that state and market have played a very crucial role in bringing these structures and platforms into existence through funding and other means, and that capital is always in search of strategies to extract value from user activity. My argument differs from this in the sense that such practices do not represent free labour willingly given by users, rather it is bare consumption (in the literal sense of the term) which is feeding capital in the context of media content industries. From this perspective, it seems that the digital medium is not radically different from older mass media. It is as if mass media players have been given the power through a new medium to reach audiences in creative ways, and they endlessly innovate the ways in which they package and sell their products, thereby making profits. This throws up the question of value production and extraction, one that is independent of the question of labour.

To clarify, I am not drawing a contrast between knowledge workers and tech savvy consumers who can tinker with informational goods and content and so challenge the existing modes of production through Open Source and Free Software; nor do I claim that the entry of the digitally marginalized users is a reversal of this phenomenon. Instead, I want to highlight the central contradiction inherent in the consumption of digital content in the ways I have described in the thesis. This kind of consumption of media content subverts capital when users do not respect copyright and download and share it freely amongst themselves. But on the other hand, it simultaneously contributes to profit generation by adding the value of popularity and thus opening up new opportunities for distribution. Both processes may take place on the same platform as well as outside these platforms (for example, when someone who watches a film song on YouTube goes on to subscribe to it as a caller tune). The puzzle here is the way in which this trend can be characterized – as subversion by users, as the ingeniousness of capital to tap into consumer activity, as a mutually advantageous process in which one feeds off the other? The answer depends on the stand-point from which one is looking at this phenomenon. One side of the story is people making the most of the market, freely downloading and sharing things and getting away without paying for the content they consume. The other side of the story is how commoditizes each act of consumption – selling things that a user can get for free in a different context.

Another important dimension of this phenomenon, especially with regard to YouTube media consumption through commercial channels, is the relation between consumption and time. As Horvarth (1998) in his exposition of 'freeware capitalism' argues, the 'free stuff' available on the Internet is either a 'product that gets you hooked on to another one or makes you just consume more time on the net.... The objective is to have you consume bandwidth'. This insight is useful to explain the interlinked workings of the advertising industry, web platform companies, content distribution companies and telecom providers.

By focusing solely on forms of labour and how they produce value on the web, we have overlooked the older modes of generation of value through contracts and rents. This seems to be way in which the new digital economy is functioning. The early years of these platforms as venture capital funded start-ups raised the hope of community formation by offering content and services for free. Web platforms such as YouTube attracted many users and expanded at an exponential rate, thus making it a fertile ground for the entry of commercial players. Extraction of value by invoking intellectual property rights is increasingly becoming dominant, even though creative production, free labour and other features exist on the same platforms. This is noticeable in the difference in how YouTube made profits initially and at present, as more and more content industry players enter the platform. The content industry itself is effectively exploiting the opportunities created by the digital infrastructure and finding inventive ways to network and connect different modes of distribution, both online and offline. In fact, it is in this strategy of networking and connections that the distribution sector of content industry has begun to thrive again in the age of digitization, with non-rivalry of information goods and zero costs for its reproduction. If value generation usually revolves around scarcity with respect to other kinds of goods, in the case of information goods, with the availability of copying and sharing technologies, value generation has to balance with overabundance and free circulation.

# Transformations within content industry

Building on the arguments in the previous section, in this section I draw attention to the major transformation that has taken place in the Indian media industry since 2000s. This discussion emphasizes the socio-economic significance of the changes I have discussed up to this point. I particularly highlight how small companies (which used to depend on the acquisition of video rights) have grown into big production houses by distributing content in innovative ways. Many of the distribution companies I spoke with have grown four-fold from 2010 onwards. They attribute this success mainly to the growth of online distribution and the ringtone business (which has bourgeoned with the spread of mobile phones and the expansion of the mobile phone user base). We are witnessing a sort of vertical integration initiated by the last segment of the commercial pyramid of content distribution. While production was earlier carried out by large production companies and distributors were involved in the final stage of circulation and sale of content, this mode of organization has radically changed. Small distribution companies have grown into production houses themselves, as noted above. Anand Audio, for example, has become a major production house in the Kannada film industry – a remarkable growth for an audio company whose business was earlier based on the purchase of audio rights and production of cassettes. We have to explore more how this transformation has been bolstered in by wider economic and technological changes, particularly in relation to the growth of the telecommunication and IT industries.

The reinvention of regional media content industries on the digital infrastructure can be read as an instance of local businesses operating in the globalized era. It is not as much a case of capital co-opting local business, as it is of local business getting channelled through this new infrastructure. The context of many of the web platforms has also changed from the time they were startups. These supposedly emancipatory spaces have created a large new user base that has been opened up to commercial players, turning users into customers. Distribution is closely following consumption patterns, and distributors want to be present wherever there is a possibility for consumption. The difference here is that earlier consumption was dependent on and limited by the physical channels of distribution. But in the new model, distribution is chasing consumption.<sup>67</sup>

\_

<sup>&</sup>lt;sup>67</sup> This is an old business strategy in media industries. For instance, when *The Times of India* entered the local market, it offered newspapers for a lower price than others. Once it acquired

In this chapter I have discussed media content as information goods and explained its lifecycle in the context of emergent business practices and strategies and the larger technological and economic environment. I have tried to theorize distribution as the most important sector for innovation in the digital capitalist economy. I have shown how most of these strategies and innovations are responses to the expanding digital user base on mobile phone platforms and the informal media content distribution practices of mobile phone shops. In the Conclusion, I summarize the arguments presented in the main chapters, outline the significance and scope of the thesis, and present a few possibilities for taking this research forward.

the reader base to sustain itself, it made its prices on par with other newspapers. Similarly, the Kannada daily *Vijaya Karnataka* followed this business strategy and became quite successful.

### CONCLUSION

In this thesis, I have added to, but departed from, existing scholarship in media and communication studies with regard to conceptualization of the object of study. By considering mobile phones as digital technology and not only as devices linked to the 'communication revolution', this work introduces a new line of inquiry into the study of media in India. While research on communication since the advent of mobile phones is in its formative stages, it points to a need to study them as catalysers of the digital revolution in India. Such recognition entails new opportunities for research, but here I have focused on just one aspect - multimedia consumption. There are many other affordances of mobile phones as digital devices which provide enormous scope for research - such as the media practices instituted by various kinds of users and the economies that get configured in the process. Smart phones, and the spectacular development of mobile phone apps, have multiplied the digital affordances of phones. Moreover, in India feature phones have not gone out of use, despite the popularity and large-scale embrace of smart phones. Apart from the smart phone moment, there is need for more research to understand the feature phone economy of India. In addition, opportunities for technologized work have increased in every sector. For example, the ways in which drivers have collaborated with or are working for companies such as Ola and Uber are an indication of how digital media technologies have begun to shape the working lives of people who were outside this entire universe just a few years ago.

There are two major streams of thought in media studies with respect to new media technologies. The first stream views the digital medium as a rupture from older media forms, thus exceptionally different from its predecessors. The early days of new media promised much, as seen in the Free and Open Source Software Movements and rise of virtual communities, and so it seemed that it promised a welcome break from the mass media of twentieth century. The other stream of thought—one that is gaining prominence—contests the 'newness' of the new medium, especially since media convergence. These scholars view new media—Internet combined with digital

technologies—as a confluence of older media forms and study this phenomenon from the angle of production of content. As most content that is available online is made by the producers of old media forms—newspapers (print media), radio, television, and film—they argue that the Internet and World Wide Web have begun to resemble the mass media of the last century. While both streams of thought offer insightful observations about developments in digital media technologies, there is a need to synthesize these perspectives to paint a more realistic picture. We also need to observe the phenomenon of the growth of digital technologies in its totality, rather than just from the vantage point of production or consumption.

In this thesis I have refrained from subscribing to either school of thought, and have striven to show that there are breaks from, as well as continuities with, old media forms. I do not deny the novelty of the media practices of the users discussed in the thesis, but merely resist the claims of exceptionality of digital technologies while at the same time being sensitive to the differences instituted by the new medium. For instance, certain practices of copying and sharing that I have written about are very similar to those of the audio cassette period. However, they are marked by vivid differences in the materiality and technology of the content and storage (such as rewriting and copying onto the same memory card or USB stick), which have drastically reduced the cost and increased the scale of sharing activities among users. The fact that all consumers of technology have access to both copying and sharing technologies is a major difference from the audio and video cassette era.

Such changes in materiality of content and storage fundamentally remodelled the ways in which content is distributed and consumed. When television was the new medium several years ago, it became a channel for distribution of films. The films broadcast over satellite television changed the material form of films from celluloid to TV signals. However, such distribution did not result in any significant textual and generic change, other than bringing films into the living space of families. But what we are witnessing with the Internet and online distribution of content is a fundamental textual and generic change into archival form, the implications of which have not yet been fully understood. We are witnessing huge databases of media content that will be available for access without any constraints of time, geography or context. In this regard, this thesis opens up

an opportunity for further research, such as to enquire the commercial and cultural implications of this change into archival form.

Within the video industry and market today, there is heterogeneity with respect to the products being released, which creates multiple opportunities for commercial exploitation. I have discussed this aspect in Chapter 5 on content as commodity. Video snippets/extracts from films or trailers or short scenes are commoditized in unforeseen ways. This development can be mostly ascribed to the dematerialization of content since digitization, which liberates the content from its storage format. These changes are highlighted by the media practices of users and transformations within media content industry, opening up a field for research into the questions of capital flows within media economy.

The economy that I have mapped is a media economy which has taken shape in response to specific cultural practices of consumption and circulation. This aspect too offers further scope for research that could not be pursued in the current work. Whether it is the informal economy of mobile phone shops or the recent modifications made by the content industry to keep abreast of changes occurring elsewhere, there is a certain symbiotic link between media practices and economy. Most of the major commercial entities of informational capitalism started out as sub-cultures or youth cultures before they realized their economic potential. Facebook, for example, began as a network of users at Harvard University. No one could have predicted at that time the vast economic potential of an online social network. Likewise, the changes occurring in the content industry today are a response to changes in the customer or user base. This is especially so in the case of the caller tune and ring tone business.

In last chapter, I discussed distribution as the process driving capital accumulation in the media industry. A review of the literature on digital and informational capitalism suggests that the media industry might just be an instance of larger trends in capital flows since the arrival of digital technologies. If we look at the most successful digital capitalist ventures and start-ups, we can see that most are just platforms for aggregated distribution and delivery – very few produce the goods that they distribute. In this regard, this research project signals this broader shift without exploring it further, although I gesture towards this larger trend in the last chapter. Since this work has only focused on

the media industry, these insights cannot be readily extended to other industries and commercial ventures via digital media technologies without additional primary data. Such data would be very valuable to corroborate, compare, and draw parallels and differences between different industries within digital capitalism.

Informality, extra-legality and piracy have been running themes throughout this thesis. I have learnt from Liang (2005) and Sundaram (2010) to view the phenomenon of piracy not within the frame of legality but as a question of access. While I noticed that piracy is fundamental to gaining access to resources, I also observed a sudden silence over copyright violations during the course of this research – an abrupt end to police raids in media markets such as National Market as vendors shifted to mobile phone and accessories business. When these developments were juxtaposed with what my interviewees in the industry said about the evolution of the content business, it became clear to me that piracy, in addition to providing access, is also generating value for the industry.

Thus, unlike in the earlier period when protection of intellectual property rights was paramount for producers and distributers of content, piracy in the context of the Indian media industry is no longer in a dichotomous relationship with the regular or 'formal' capitalist market. Through informal circulation, users create popularity and hence additional value for the media product, by increasing the chances of its sale in different forms. Manuel's work (1991) showed how some very successful audio cassette distributors began their careers as pirate players. Sundaram (2010) demonstrated that piracy in many cases co-exists with regular media markets. We have now arrived at a point where piracy feeds into the regular market. Thus, we see that almost all distribution companies today have an online presence, on the same platforms used by 'pirate' users to download and circulate content. Once the content becomes popular and is made available for free streaming or for a nominal cost, it is very likely that a significant number of users will stream it rather than download it from an unauthorized source. It is noteworthy that many distribution companies do not allow the offline download feature for their most popular products on YouTube. They lure users with high quality products, which consumers have to stream in order to watch. Each streaming view generates income for the providers.

All these transitions are pointing towards the emergence of a new political economy of the Internet. The Internet as self-organized, anarchic space (as many of the early Internet pundits and practitioners predicted) will be increasingly controlled by market interests. This transformation will have a major impact on debates such as on net neutrality. Once capital begins to dominate the Internet, market and non-market players will cease to have an equal footing, and non-market players are at risk of losing out. As more and more of these companies come on to web platforms, they will try to regulate the functional dynamics of these platforms. This is already happening – for instance, as Youtube ties up with content distributors, user activity will be strictly regulated to comply with the needs of those commercial interests (such as safeguarding copyrighted content). From the ideas of free culture and sharing economy, we are transitioning into consumption of media content made available by the market (which is much like the old top-down model of distribution and consumption, combined with the pseudo-promise of interactivity and community formation through digital media). We already see the trend of mass mediatization of the Internet, with decentralized and pluralized distribution which also involves users and their activities. Mass media forms, before digitization and internetization, had one central locus of dissemination. Once they come on digital infrastructure their capacity to proliferate through user activity and digital dynamism is infinite.

In this work, I have not sufficiently attended to the much debated issue of the 'digital divide', and have conceptualized marginality only in terms of access. I am aware that in most cases economic inequality marks this marginality, although not necessarily in all cases. I believe that differences in terms of what can be accessed, and how, depend much more on the life context and social situation of users than simply on their economic status. My argument is that the debates on digital divide have not sufficiently questioned the differentiation among users. The scholarship on this issue is more in alignment with projects and agendas of market and state, which imagine that users should be equipped with certain skills to fully realize the vision of inclusion (both financial and digital).

While highlighting an altogether different kind of technological literacy, skills, and media practices, I have also been careful not to romanticize or represent these capacities or access as emancipatory. I am deeply aware of the disadvantaged position occupied by the 'digital citizens' described in the thesis, in relation to the more tech-savvy ones. At the

same time, I have marvelled at their efficiency in procuring the things they want and at their ability learn new skills in a rapidly volatile technological environment. I also disagree with those who view development-oriented digital literacy projects as 'failures' when they do not meet their objectives and instead are appropriated by users for their own ends. The social life of technology is very complex, and the inequalities that attend it (the problem that is the central preoccupation of both state and market for different reasons) cannot have simple and easy technocratic solutions based on enhancing access, exposure, or targeted training. Even though the divide is technological, the measures for bridging it (if this is what is required) have to be devised more in the domain of the social than the technological. This requires more careful reflection, which I have not attempted to do in this thesis.<sup>68</sup> The effort throughout this thesis has been to show how technology is embedded in everyday lives of users, shaping both their work and leisure time. Consequently, I have avoided discussing this array of experiences in the vocabulary of either emancipation or imprisonment.

Besides recording the everyday practices of mobile phone users, I have tried to historicize these practices and explore their links to the analog world. This search for the local history of media consumption practices opened up questions about the social and commercial history of technology. The exercise has furnished me with the material to write about audio and video in novel ways, starting from the early days of sound recording and moving images to contemporary forms of multimedia content.

\_

demonetization in India. Many digitally marginalized users adapted to the change forced on them by resorting to the online payment app, Paytm. It was common to see vegetable vendors and auto-rickshaw drivers offering the Paytm option to customers. With an upper limit on monetary transactions set to 20,000 Rupees per day for a regular Paytm account, many informants mentioned that they could not have relied on Paytm for all their transactions. As they were operating in localities where they had regular customers, many customers themselves kept accounts of their transactions with these vendors and promptly paid them as soon as cash was made available. So, trust was more important in sustaining these informal sector businesses in the context of demonetization, than the limited options provided by cashless payment systems such as Paytm. The solution to the immediate problem did not come through technology, but from the way in which these informal workers organized transaction and exchange based on trust and promise to pay.

One aspect of this phenomenon that I have not addressed adequately is the gendered nature of the digital universe I have described. I noticed that phone access among working class women users is generally mediated by a male family member, such as father, brother, husband, or son. However, I lack sufficient data to draw substantial conclusions about gendered differences in cell phone access or usage, or their different experiences of media consumption via phones, although this is clearly an important question. There is further scope for research along this line for understanding how gender shapes media use. Age is another aspect that requires more attention, especially if use and access become the criteria for classification of users. Although I have touched upon age differences among users while discussing sharing practices among autorickshaw drivers and security guards, there is a need for more research on how age intersects with class and gender differences to shape media use.

## In summary

In this thesis I view mobile phones as a key digital technology and as an infrastructure that acts as an access point for the entry of diverse groups of users into the digital universe. The dawn of new digital subject has wide-ranging implications for telecommunications, media, and entertainment industries, as well as cultural politics of digital media use in India. Moving away from universalist understandings of the experience of digital technologies, I have considered the media practices of the digitally marginalized as later uses of technology, which are as important as the initial uses. I argue that later uses are not just imitations of initial uses, but constitute a form of technological knowledge that is meaningful to the life contexts of such users. The role of mobile phone shops in facilitating the diffusion of essential and required technological knowledge is unprecedented and very important. The fact that all this learning happens in transactional contexts adds to the subsidiary role micro-economies play outside the strict boundaries of monetary exchange. I have read these different kinds of literacies outside the evaluative frameworks promoted by the ICT4D discourse. The sociality of mobile media practices that I have tried to uncover not only indicate the presence of a distinct culture, but also show their importance in contemporary digital capitalism. New modes of distribution—online and offline, formal and informal—highlighted in this work, illustrate the workings of an industry which is adapting itself to the demands of the digital

environment. The interaction of the regional media industry with the global media industry, especially in the new media infrastructure, shows at once the globalized scale of content distribution and the strengthening of niche markets and audiences. It also highlights the significance of the process of distribution not just in the media content industry but for capitalist accumulation and expansion in general in the age of digital technologies.

# **Appendix: DATABASE**

I present below a summary of the data that was collected during the 15 months of fieldwork. It is indicative of the eclectic nature of the data sources that I had to rely on for this research.

#### A. User interviews (some audio recorded)

- 1. Taxi drivers -2
- 2. Security guards 6: four from Orissa and two from Karnataka. They belonged to different age groups. Two young teenagers, two tech savvy young people, one middle aged person and one very old person. The difference among these users in terms of technical abilities and literacy also vary.
- 3. Auto rickshaw drivers -2
- 4. Vegetable vendors -3
- 5. Hotel staff, cooks and cleaners 4
- 6. Construction workers 4
- 7. House maids and women casual labourers 4
- 8. Sex worker -1
- 9. Subject expert who has worked with auto rickshaw drivers 1
- B. Conversations and brief interviews with shop owners and other market actors, observations in markets
  - 1. Small mobile phone shops 12
  - Many diary entries for market visits (National Market area, Majestic, Chickpet, Gandhi Nagar area)
  - 3. Recorded conversations with an erstwhile national market dealer and other connoisseur shop for horror movies who run mobile phone shops now 2
  - 4. Photographs of mobile phone shops 9

C. Interviews and documents used to trace history of audio and video consumption.

- 1. Interview with sound systems dealer, sound engineer in the Mysore state 1
- 2. Interviews with gramophone dealers, mainly HMV and Columbia 3
- 3. Interviews with audio cassette dealers 4

- 4. Interviews with audiophiles, videophiles and cinephiles 6
- 5. Photographs of records and plates 75
- 6. Other material collected: photographs of old plates, records and equipment which give details about artists, companies and distributors

#### D. Interactions with distribution companies

- 1. Conversations with people in charge of physical sales outlets -2
- 2. Interviews with people in charge of YouTube channels 4

#### E. Other events and material

- Panel discussions organized by film societies, industrial chamber of commerce dealing with film production, distribution and exhibition with a particular focus on Kannada film industry – 4
- 2. Diary entries and field notes recording the observations during walks through markets, streets and specific areas

## **REFERENCES**

- Abraham, Reuben. 2007. Mobile phones and economic development: Evidence from the fishing industry in India. *Information Technologies and International Development* 4(1): 5-17.
- Adorno, Theodor. 1991. *The Culture Industry: Selected Essays on Mass Culture.* London: Routledge.
- Agar, Jon. 2013. Constant Touch: A Global History of the Mobile Phone. London: Icon Books Ltd.
- Aker, Jenny C. 2008. Does digital divide or provide? The impact of mobile phones on grain markets in Niger. *BREAD* Working Paper 177.
- Althusser, Louis. 1971. Ideology and ideological state apparatuses: Notes towards an investigation. *Lenin and Philosophy and Other Essays*. Ben Brewster, trans. New York: Monthly Review Press.
- Andrejevic, Mark. 2009. Exploiting YouTube: Contradictions of user-generated labour. In *The YouTube Reader*, eds. Pelle Snickars and Patrick Vonderau, pp. 406-423. Lithuania: Logotipas.
- Anjaria, Jonathan Shapiro. 2011. Ordinary states: Everyday corruption and the politics of space in Mumbai. *American Ethnologist* 38(1): 58-72.
- Appadurai, Arjun. 1986. Introduction: Commodities and the politics of value. In *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai, pp. 3-63. Cambridge: Cambridge University Press.
- Arditi, David. 2014. iTunes: Breaking barriers and building walls. *Popular Music and Society* 37(4): 408-424.
- Arora, Payal. 2012. The leisure divide: Can the 'Third World' come out and play? Information Development 28(2): 93-101.
- Arora, Payal and Nimmi Rangaswamy. 2013. Digital leisure for development: Rethinking new media practices from the global south. *Media, Culture & Society* 35(7): 898-905.
- Arvidsson, Adam. 2006. Brands: Meaning and Value in Media Culture. Oxon: Routledge.
- Arvidsson, Adam. 2009. The ethical economy: Towards a post-capitalist theory of value. Capital & Class 33(13): 13-29.

- Arvidsson, Adam and Elanor Colleoni. 2012. Value in informational capitalism and on the Internet. *The Information Society* 28(3): 135-150.
- Athique, Adrian. 2008. The global dynamics of Indian media piracy: Export markets, playback media and the informal economy. *Media, Culture and Society* 30(5): 699-717.
- Athique, Adrian. 2014. Piracy at the frontier: Uneven development and the public sphere. *Media International Australia* 152: 87-97.
- Athique, Adrian and Douglas Hill. 2007. Multiplex cinemas and urban redevelopment in India. *Media International Australia* 124: 108-118.
- Athique, Adrian and Douglas Hill. 2010. *The Multiplex in India: A Cultural Economy of Urban Leisure*, London and New York: Routledge.
- Bakos, Yannis, Erik Brynjolfsson and Douglas Lichtman. 1999. Shared information goods. *The Journal of Law and Economics* 42(1): 117-156.
- Barbrook, Richard. 1997. The digital economy. Nettime. www.nettime.org. 17 June 1997.
- Barbrook, Richard. 1998. Revised 2005. The hi-tech gift economy. *First Monday, Special Issue #3*: Internet banking, e-money and Internet gift economies.
- Bartlett, Jamie. 2014. The Dark Net: Inside the Digital Underworld. London: William Heinemann.
- Bates, Benjamin. 1985. Information as an economic good: A re-evaluation of theoretical approaches. 35th Annual Conference International Communication Association,
  Honolulu. Conference paper.
- Batson-Savage, Tanya. 2008. 'Hol' awn mek a answer mi cellular: Sex, sexuality and the cellular phone in urban Jamaica. In *Mobile Phone Cultures*, ed. Gerard Goggin. New York: Routledge.
- Baudrillard, Jean. 1970. *The Consumer Society: Myths and Structures*. London: Sage Publications.
- Baudrillard, Jean. 1975. The Mirror of Production. St. Louis, MO: Telos Press.
- Baudrillard, Jean. 1981. *Simulacra and Simulation*. Ann Arbor, MI: University of Michigan Press.
- Bekkali, Mukhtar Askaruli. 2006. The economics of protection of cultural goods.

  \*Retrospective Theses and Dissertations.\* Paper 3050. Digital Repository: Iowa State University.
- Bell, Daniel. 1973. The Coming of Post-Industrial Society. New York: Basic Books.
- Bell, David. 2001. An Introduction to Cybercultures. London and New York: Routledge.

- Bell, David, ed. 2006. *Cybercultures: Critical Concepts in Media and Cultural Studies*. Volumes 1-4. London and New York: Routledge.
- Benjamin, Walter. 1936 (1969). The work of art in the age of mechanical reproduction. In *Illuminations*, ed. Hannah Arendt. New York: Schocken Books.
- Benkler, Yochai. 2006. The Wealth of Networks: How Social Production Transforms Markets and Freedom. New Haven: Yale University Press.
- Biersdorfer, J.D. 2003. *iPod & iTunes: The Missing Manual.* Sebastopol: Pogue Press O'Reilly.
- Boyd, Danah. 2008. *Taken Out of Context*. PhD dissertation, University of California, Berkeley.
- Bromberg, Heather. 1996. Are MUDs communities? Identity, belonging and consciousness in virtual worlds. In *Cybercultures*, Volume 3, ed. David Bell, pp. 115-126. London and New York: Routledge.
- Bruns, Axel. 2007. Produsage: Towards a broader framework for user-led content creation. In *Proceedings Creativity & Cognition 6*, Washington, DC.
- Buroway, Michael. 2009. The Extended Case Method. Four Countries, Four Decades, Four Great Transformations, and One Theoretical Tradition. Berkeley: University of California Press.
- Burrell, Jenna. 2010. Evaluating shared access: Social equality and the circulation of mobile phones in rural Uganda. *Journal of Computer- Mediated Communication* 15(2): 230-50.
- Castells, Manuel. 2004. The Network Society: A Cross-cultural Perspective. London: Routledge.
- Castells, Manuel et al. 2007. *Mobile Communication and Society*. Massachusetts: The MIT Press.
- Charmaz, Kathy. 2000. Constructivist and objectivist grounded theory. In *Handbook of Qualitative Research*, eds. N. K. Denzin & Y. Lincoln, pp. 509-535. Thousand Oaks, CA: Sage.
- Ciaramitaro, Barbara L, ed. 2012. *Mobile Technology Consumption: Opportunities and Challenges*. Pennsylvania: Information Science Reference.
- Coleman, Gabriella. 2009. Code is speech: Legal tinkering, expertise and protest among free and open source software developers. *Cultural Anthropology* 24(3): 420-454.
- Couldry, Nick. 2012. *Media, Society, World: Social Theory and Digital Media Practice*. Cambridge: Polity Press.

- David, Matthew. 2010. Peer to Peer and the Music Industry: The Criminalization of Sharing. London: Sage Publications Limited.
- Dent, Alexander S. 2012. Piracy, circulatory legitimacy, and neoliberal subjectivity in Brazil. *Cultural Anthropology* 27(1): 28-49.
- Doctorow, Cory. 2008. Content: Selected Essays on Technology, Creativity, Copyright, and the Future of the Future. San Francisco: Tachyon Publications.
- Dokko, Jane, Megan Mumford and Diane Schanzenbach. 2015. Workers and the online gig economy. A Hamilton Project Framing Paper.
- Donner, Jonathan. 2006. The use of mobile phones by micro-entrepreneurs in Kigali, Rwanda: Changes to social and business networks. *Information Technologies and International Development* 3(2): 3-19.
- Donner, Jonathan. 2008. Shrinking fourth world? Mobiles, development and inclusion. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 29-42. Cambridge: MIT Press.
- Donner, Jonathan, and Marcela X. Escobari. 2010. A review of evidence on mobile use by micro and small enterprises in developing countries. *Journal of International Development* 22(5): 641-58.
- Donovan, Sarah, David Bradley and Jon Shimabukuru. 2016. What does the gig economy mean for the workers? *Key Workplace Documents, DigitalCommons@ILR*.
- Douglas, Mary and Baron Isherwood. 1979. The World of Goods. Towards an Anthropology of Consumption. New York: Basic Books.
- Drahos, Peter and John Braithwaite. 2002. *Information Feudalism: Who Owns the Knowledge Economy*. London: Earthscan Publications Ltd.
- Dumazedier, Joffre. 1967. Toward a Society of Leisure. New York: Free Press.
- Dwyer, Tim. 2010. Media Convergence. Berkshire: McGraw Hill Open University Press.
- Fischer, Michael M.J. 2009. *Anthropological Futures*. Durham and London: Duke University Press.
- Fischer, Michael M.J. 2016. Anthropological STS in Asia. *The Annual Review of Anthropology* 45: 181-198.
- Fisher, Eran. 2015. The dialectics of prosumption in the digital age. In *Digital Labour and Prosumer Capitalism: The US Matrix*, eds. Olivier Fraysse and Mathieu O' Neil, pp. 125-144. Hampshire: Palgrave Macmillan.
- Flew, Terry. 2008. New Media: An Introduction. Melbourne: Oxford University Press.
- Foray, Dominique. 2004. The Economics of Knowledge. Cambridge, MA: MIT Press.

- Fortunati, Leopaldina. 2002. Italy: stereotypes, true and false. In *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, eds. Katz, J.E. and Aakhus, M.A. Cambridge: Cambridge University Press.
- Fortunati, Leopoldina. 2005. Mediatization of the net and internetization of the mass media. *Gazette: The International Journal for Communication Studies* 67(1): 27-44.
- Fortunati, Leopoldina, James Katz and Raimonda Riccini. Eds. 2003. *Mediating the Human Body: Technology, Communication and Fashion*. New Jersey: Lawrence Erlbaum Associates, Publishers.
- Fraysse, Olivier and Mathieu O'Neil. 2015. Hacked in the USA: Prosumption and digital labour. In *Digital Labour and Prosumer Capitalism: The US Matrix*, eds. Olivier Fraysse and Mathieu O' Neil. Hampshire: Palgrave Macmillan.
- Friedman, Gerald. 2014. Workers without employers: Shadow corporations and the rise of gig economy. *Review of Keynesian Economics* 2(2): 171-188.
- Fuchs, Christian. 2009. A contribution to the critique of the political economy of transnational informational capitalism. Rethinking Marxism: A Journal of Economics Culture and Society 21(3): 387-402.
- Fuchs, Christian. 2010. Labor in informational capitalism and on the Internet. *The Information Society* 26(3): 179-196.
- Gasser, Urs. 2004. Itunes: How copyright, contract, and technology shape the business of digital media a case study. *Berkman Center for Internet & Society at Harvard Law School Research Publication* No. 2004-07.
- Gee, Felix Oberholzer and Koleman Strumpf. 2010. File sharing and copyright. *Innovation Policy and the Economy* 10(1): 19-55.
- Gensollen, Michel. 2007. Information goods and online markets. In *Internet and Digital Economics*, eds. E. Brousseau, N. Curien, 173 -201. Cambridge: Cambridge University Press.
- Gergen, Kenneth J. 2008. Mobile communication and transformation of the democratic process. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 297-310. Cambridge: MIT Press.
- Glaser, Barney G. and Anselm L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research.* London: Aldine Transaction.
- Goggin, Gerard. 2006. *Cellphone Culture: Mobile Technology in Everyday Life.* London and New York: Routledge.

- Goggin, Gerard. 2008. Reorienting the mobile: Australasian imaginaries. *The Information Society* 24: 171-181.
- Goggin, Gerard. 2011. Global Mobile Media. New York: Routledge.
- Goggin, Gerard and Cesaralbarran Torres. 2014. Political and mobile media landscapes in Mexico: The case of #yosoy132. *Continuum: Journal of Media and Cultural Studies* 28(1): 28-42.
- Gooptu, Nandini. 2013. Servile sentinels of the city: Private security guards, organized informality, and labour in interactive services in globalized India. *International Review of Social History* 58(1): 9-38.
- Gupta, Akhil and James Ferguson. 1997. Discipline and practice: "The field" as site, method, and location of anthropology. In *Anthropological Locations*, eds. Akhil Gupta and James Ferguson, pp. 1-46. California: University of California Press.
- Harvey, David. 1989. The Condition of Postmodernity. Cambridge: Blackwell Publishers.
- Heitzman, James. 2004. Network City: Planning the Information Society in Bangalore New Delhi: OUP.
- Hesmondhalgh, David. 2010. User-generated content, free labour and the cultural industries. *Ephemera: Theory and Politics in Organization* 10(3/4): 267-384.
- Horst, Heather and Daniel Miller. 2005. From kinship to link-up. *Current Anthropology* 46(5): 755-778.
- Horvarth, John. 1998. Freeware capitalism. Nettime, posted on 5 February 1998.
- Hughes, Stephen Putnam. 2007. Music in the age of mechanical reproduction: Drama, gramophone, and the beginnings of Tamil cinema. *The Journal of Asian Studies* 66(1): 3-34.
- Ibahrine, Mohammad. 2008. Mobile communication and sociopolitical change in the Arab world. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 257-272. Cambridge: MIT Press.
- Jameson, Fredric. 1984. *The Cultural Logic of Late Capitalism*. Durham: Duke University Press.
- Jeffrey, James and Mila Versteeg. 2007. Mobile phones in Africa: How much do we really know? *Social Indicators Research* 84: 117-126.
- Jeffrey, Robin and Assa Doron. 2013. Cell Phone Nation. Delhi: Hachette India.
- Jenkins, Henry. 2006. Convergence Culture: Where Old and New Media Collide. New York: New York University Press.

- Jensen, Robert. 2007. The digital provide: Information (technology), market performance and welfare in the south Indian fisheries sector. *Quarterly Journal of Economics* 122(3): 879-924.
- Jones, Paul. 2005. Strategies and technologies of sharing in contributor-run archives. *Library Trends* 53(4): 651-662.
- Jordan, Tim. 2006. Language and libertarianism: The politics of cyberculture and the culture of cyberpolitics. In *Cybercultures*, Volume 3, ed. David Bell, pp. 186-203. London and New York: Routledge.
- Kaplan, Max. 1960. Leisure in America. New York: Wiley.
- Kaplan, Max. 1975. Leisure: Theory and Policy. New York: Wiley.
- Katz, James E, ed. 2003. *Machines that Become Us: The Social Context of Personal Communication Technology*. New Brunswick: Transaction Publishers.
- Katz, James E., and Satomi Sugiyama. 2005. Mobile phones as fashion statements: The co-creation of mobile communication's public meaning. In *Mobile Communications*, ed. Rich Ling *et al.*, pp.63-81. London: Springer.
- Kelty, Christopher. 2008. *Two Bits: The Cultural Significance of Free Software*. Durham: Duke University Press.
- Kittler, Friedrich. 1999. Gramophone, Film, Typewriter. Stanford: Stanford University Press.
- Kolko, Beth. 2000. Erasing @race: going white in the (inter)face. In *Race in Cyberspace*, eds. B. Kolko, L. Nakamura and G. Rodman, pp. 213-232. London: Routledge.
- Kopytoff, Igor. 1986. The cultural biography of things: Commoditization as a process. In *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai, pp. 64-91. Cambridge: Cambridge University Press.
- Larkin, Brian. 2008. Signal and Noise: Media, Infrastructure and Urban Culture in Nigeria.

  Durham: Duke University Press.
- Latour, Bruno. 1993. We Have Never Been Modern. Catherine Porter, trans. Cambridge: Harvard University Press.
- Latour, Bruno. 2005. Reassembling the Social: An Introduction to Actor-Network-Theory. Oxford: Oxford University Press.
- Laudon, Kenneth C. and Carol Guercio Traver. 2014. *E-commerce: Business, Technology, Society.* New Jersey: Pearson.
- Lazzarato, Maurizio. 1996. Immaterial labour. In Radical Thought in Italy, eds. P Virno and M Hardt, pp. 133–150. Minneapolis: University of Minnesota Press.
- Lessig, Lawrence. 2004. Free Culture. New York: Penguin.

- Lessig, Lawrence. 2008. Remix: Making Art and Commerce Thrive in the Hybrid Economy. London: Bloomsbury.
- Liang, Lawrence. 2002. Media empires and renegade pirates. *Humanscape* 11(8). Retrieved from <a href="http://www.humanscape.org/Humanscape/new/aug04/mediaempires.htm">http://www.humanscape.org/Humanscape/new/aug04/mediaempires.htm</a> (March 16, 2013).
- Liang, Lawrence. 2005. Porous legalities and avenues of participation. In *Sarai Reader 05:*Bare Acts, pp. 6-17. Delhi: Centre for the Study of Developing Studies.
- Lim, Sun Sun and Gerard Goggin. 2014. Mobile communication in Asia: Issues and imperatives. Introduction to the special section. *Journal of Computer-Mediated Communication* 19: 663-666.
- Livingstone, Sonia. 2003. From the mass audience to the interactive media user. In *A Companion to Media Studies*, ed. Angharad Valdivia, pp. 337-359. Malden: Blackwell Publishing Ltd.
- Lobato, Ramon. 2012. Shadow Economies of Cinema: Mapping Informal Film Distribution.

  London: Palgrave Macmillan.
- Lobet-Maris, Claire. 2003. Mobile phone tribes: Youth and social identity. In *Mediating the Human Body: Technology, Communication and Fashion*, eds. Leopoldina Fortunati, James Katz and Raimonda Riccini, pp. 87-92. New Jersey: Lawrence Erlbaum Associates, Publishers.
- Lotz, Amanda D. 2017. *Portals: A Treatise on Internet-Distributed Television*. Ann Arbor, MI: Michigan Publishing, University of Michigan Library.
- McCracken, Grant. 1988. *The Long Interview: Qualitative Research Methods, Volume 13.* New Delhi: Sage Publications.
- McLuhan, Marshall. 1964. *Understanding Media: The Extensions of Man.* New York: McGraw-Hill.
- Machlup, Fritz. 1984. *Knowledge, its Creation, Distribution and Economic Significance*. Volume 3. Princeton: Princeton University Press.
- Madon, Shirin. 1997. Information-based global economy and socioeconomic development: The case of Bangalore. *The Information Society* 13: 227-244.
- Mankekar, Purnima and Akhil Gupta. 2017. Future tense: Capital, labour and technology in a service industry. *HAU: Journal of Ethnographic Theory* 7(3): 67-87.
- Manuel, Peter. 1991. Cassette Culture: Popular Music and Technology in North India. Chicago: University of Chicago Press.

- Manuel, Peter. 2013. Democratizing Indian popular music: From cassette culture to the digital era. In *No Limits Media Studies from India*, ed. Ravi Sundaram, pp. 356-380. Delhi: Oxford University Press.
- Marcus, George E. and Michael M.J. Fischer. 1986. *Anthropology as Cultural Critique: An Experimental Moment in the Human Sciences*. Chicago: University of Chicago Press.
- Marcus, George. 1995. Ethnography in /of the world system: The emergence of multisited ethnography. *Annual Review of Anthropology* 24: 95-117.
- Marx, Karl. 1867. Capital. Volume 1. Moscow: Progress Publishers.
- Mazzarella, William. 2010. Beautiful balloon: The digital divide and the charisma of new media in India. *American Ethnologist* 37(4): 783-804.
- Mechael, Patricia. 2008. Health services and mobiles: A case from Egypt. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 91-104. Cambridge: MIT Press.
- Mertia, Sandeep. 2014. Ethnography of social media in rural Rajasthan. *Short-term Research Projects in Social and Digital Media*. Delhi: Sarai (unpublished report).
- Miller, Daniel, ed. 1995. Acknowledging Consumption: A Review of New Studies. London: Routledge.
- Miller, Daniel and Don Slater. 2006. Being Trini and representing Trinidad. In *Cybercultures*, Volume 4, ed. David Bell, pp. 106-137. London and New York: Routledge.
- Mills, Jane, Ann Bonner and Karen Francis. 2006. The development of constructivist grounded theory. *International Journal of Qualitative Methods* 5(1) Article 3. Retrieved from < <a href="http://www.ualberta.ca/~iiqm/backissues/5\_1/pdf/mills.pdf">http://www.ualberta.ca/~iiqm/backissues/5\_1/pdf/mills.pdf</a> (August 2, 2016).
- Mitchell, W.J.T. and Mark B.N. Hansen. Eds. 2010. *Critical Terms for Media Studies*. Chicago: University of Chicago Press.
- Morawczynski, Olga. 2009. Exploring the usage and impact of 'transformational' mobile financial services: The case of M-PESA in Kenya. *Journal of Eastern African Studies* 3(3): 509-25.
- Morawczynski, Olga, and Mark Pickens. 2009. Poor people using mobile financial services: Observations on customer usage and impact from M-PESA. *CGAP* Brief.
- Morris, Jeremy. 2012. Making music behave: Metadata and the digital music commodity. New Media and Society 14(5): 850-866.

- Morris, Sean. 2008. Pirates of the Internet, at intellectual property end with torrents and challenges for choice of law. *International Journal of Law and Information Technology* 17(3): 282-303.
- Nair, Janaki. 2005. Bangalore's Twentieth Century: The Promise of a Metropolis. New Delhi: Oxford University Press.
- Nightingale, Virginia and Tim Dwyer. 2006. The audience politics of 'enhanced' television formats. *International Journal of Media and Cultural Politics* 2(1): 25-42.
- Negroponte, Nicholas. 1995. Being Digital. London: Hodder and Stoughton.
- Ng, Irene C.L. 2014. *Creating New Markets in the Digital Economy: Value and Worth.* Delhi: Cambridge University Press.
- O'Hara, Kenton and Barry Brown. Eds. 2006. Consuming Music Together Social and Collaborative Aspects of Music Consumption Technologies. Amsterdam: Springer.
- O'Riordon, Sheila, Joseph Feller and Tadhg Nagle. 2011. The impact of social network sites on the consumption of cultural goods. *European Conference on Information Systems Proceedings*. Paper 203. <a href="http://aisel.aisnet.org/ecis2011/203">http://aisel.aisnet.org/ecis2011/203</a>
- OECD. 2013. The Internet Economy on the Rise: Progress since the Seoul Declaration. OECD Publishing. <a href="http://dx.doi.org/10.1787/9789264201545-en">http://dx.doi.org/10.1787/9789264201545-en</a>
- Pang, Laikwan. 2004. Mediating the ethics of technology: Hollywood and movie piracy. *Culture, Theory and Critique* 45(1): 19-32.
- Pani, Narendar, et al. 2010. Bengaluru, Bangalore, Bengaluru: Imaginations and Their Times. New Delhi: Sage Publications.
- Pauwels, Marie-Christine. 2015. Work and prosumerism: Collaborative consumption in the United States. In *Digital Labour and Prosumer Capitalism: The US Matrix*, eds.

  Olivier Fraysse and Mathieu O' Neil, pp. 66-84. Hampshire: Palgrave Macmillan.
- Portus, Lourdes M. 2008. How the urban poor acquire and give meaning to the mobile phone. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 105-118. Cambridge: MIT Press.
- Potts, Jason. 2008. Social network markets: A new definition of the creative industries. *Journal of Cultural Economy* 32: 167-185.
- Prensky, Marc. 2001. Digital natives, digital immigrants. On the Horizon 9(5): 1-6.
- Rajadhyaksha, Ashish. 2011. The Last Cultural Mile: An Inquiry into Technology and Governance in India. Bangalore: CIS-RAW.

- Ramaswamy, K.V. and T. Agarwal. 2012. Services-led Growth, Employment and Job Quality: A Study of Manufacturing and Service Sectors in Urban India. Mumbai: Indira Gandhi Institute for Development Research (unpublished report).
- Ranciere, Jacques. 1989. Proletarian Nights: The Worker's Dream in Nineteenth-Century France. John Drury, trans. London: Verso.
- Rangaswamy, Nimmi. 2009. The non-formal business of cyber cafes: A case-study from India. *Journal of Information, Communication and Ethics in Society* 7(2/3): 136-145.
- Rangaswamy, Nimmi and Sumitra Nair. 2010. The mobile phone store ecology in a Mumbai slum community: Hybrid networks for enterprise. *Information Technology and International Development* 6(3): 51-65.
- Rangaswamy, Nimmi and Nithya Sambasivan. 2011. Cutting chai, jugaad and here pheri: Towards ubicomp for a global community. *Pers Ubiquit Comput* 15: 553-564.
- Rangaswamy, Nimmi and Edward Cutrell. 2012. Anthropology, development and ICTs: Slums, youth, and the mobile internet in urban India. *Information Technologies & International Development* 9(2): 51-63.
- Rangaswamy, Nimmi and Payal Arora. 2015. The mobile internet in the wild and every day: Digital leisure in the slums of urban India. *International Journal of Cultural Studies*: 1-16.
- Rashmi M. 2017. The digital others. Seminar 694.
- Ravikant. 2017. Media, memory and intermediality: The 'regional' in Hindi cinema. Paper presented at *Regional Cultures and New Media Technologies*, Indian Institute of Advanced Study, Shimla, April 26-28, 2017.
- Rey, P.J. and George Ritzer. 2012. The sociology of consumption. In *The Wiley Blackwell Companion to Sociology*. Ed. George Ritzer. West Sussex: Blackwell Publishing Ltd.
- Rheingold, Howard. 1993. Rethinking virtual communities. In *Cybercultures*, Volume 3, ed. David Bell, pp. 3-66. London: Routledge.
- Rheingold, Howard. 2008. Mobile media and political collective action. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 225-240. Cambridge: MIT Press.
- Ritzer, G. and N. Jurgenson. 2010. Production, consumption, prosumption. *Journal of Consumer Culture* 10(1): 13-36.
- Roberts, John Michael and Jonathan Joseph. 2015. Beyond flows, fluids and networks: Social theory and the fetishism of the global informational economy. *New Political Economy* 20(1): 1-20.

- Rogers, Richard. 2013. Digital Methods. Cambridge: MIT Press.
- Rojek, Chris. 2010. The Labour of Leisure: The Culture of Free Time. London: Sage.
- Rooney, David, Greg Hearn and Abraham Ninan. Eds. 2005. *Handbook on the Knowledge Economy*. Cheltenham: Edward Elgar Publishing Limited.
- RoyChowdhury, Supriya et al. 2013. Migration, Informal Work and Welfare: A Policy Perspective on Karnataka's Cities. Bangalore: Institute for Social and Economic Change (unpublished report).
- Schmid, Beat. 2001. What is new about the digital economy? *Electronic Markets* 11(1): 44-51.
- Schmidt, Eric and Jared Cohen. 2013. The New Digital Age: Reshaping the Future of People, Nations and Business. New York: Alfred A. Knopf.
- Sethi, Aman. 2009. Nehru place, or why the whole is more than the sum of its parts. In *The Digitized Imagination*, ed. Nalini Rajan, pp. 141-151. New Delhi: Routledge.
- Shah, Nishant. 2011. Histories of the Internet: Series introduction. In *The Last Cultural Mile: An Inquiry into Technology and Governance in India*, by Ashish Rajadhyaksha, pp. iv-ix. Bangalore: CIS-RAW.
- Shah, Nishant and Fieke Jansen, eds. 2011. *Digital Alternatives: With a Cause?* Books 1, 2, 3, 4. Bangalore and Hague: CIS and Hivos.
- Silver, David. 2006. Looking backwards, looking forwards: Cyberculture studies 1990-2000. In *Cybercultures: Critical Concepts in Media and Cultural Studies*. Volume 2. Ed. David Bell, pp. 61-79. London: Routledge.
- Snickars, Pelle and Patrick Vonderau. 2009. Introduction. In *The YouTube Reader*, eds. Pelle Snickars and Patrick Vonderau, pp. 9-21. Lithuania: Logotipas.
- Soderberg, Johan. 2015. The coming of augmented property: A constructivist lesson for the critics of intellectual property. In *Digital Labour and Prosumer Capitalism: The US Matrix*, eds. Olivier Fraysse and Mathieu O' Neil, pp. 166-186. Hampshire: Palgrave Macmillan.
- Sreekumar, T.T. 2011. Mobile phones and cultural ecology of fishing in Kerala, India. *The Information Society: An International Journal* 27(3): 172-180.
- Srinivas, Lakshmi. 2010. Cinema halls, locality and urban life. Ethnography 11(1): 189-205.
- Srinivas, S.V. 2003. Hong Kong action film in the Indian B circuit. *Inter-Asia Cultural Studies* 4(1): 40-62.
- Srinivas, S.V. 2013. *Politics as Performance: A Social History of the Telugu Cinema*. Ranikhet: Permanent Black.

- Srinivasan, Janaki and Jenna Burrell. 2015. On the importance of price information to fishers and to economists: Revisiting mobile phone use among fishers in Kerala. *Information Technologies and International Development* 11(1): 57-70.
- Srivastava, Lara. 2005. Mobile phones and the evolution of social behaviour. *Behaviour & Information Technology* 24(2): 111-129.
- Stebbins, Robert. 1992. *Amateurs, Professionals and Serious Leisure*. Montreal: McGill Queen's University Press.
- Sterne, Jonathan. 2006. Thinking the internet: Cultural studies versus the millennium. In *Cybercultures: Critical Concepts in Media and Cultural Studies*, ed. David Bell. Volume 2, pp. 80-108. London and New York: Routledge.
- Steyn, Jacques. 2016. A critique of the claims about mobile phones and Kerala fisherman: The importance of the context of complex social systems. *EJISDC* 74(3): 1-31.
- Strauss, Anselm and Juliet Corbin. 1990(1998). *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory.* London: Sage Publications.
- Sukhodolov, Alexander, Elena Popkova and Irina Kuzlaeva, eds. 2018. *Internet Economy vs Classic Economy: Struggle of Contradictions*. Cham: Springer.
- Sundaram, Ravi. 1999. Recycling modernity: Pirate electronic cultures in India. *Third Text* 13(47): 59-65.
- Sundaram, Ravi. 2010. Pirate Modernity: Delhi's Media Urbanism. New York: Routledge.
- Sundaram, Ravi. 2013. Revisiting the pirate kingdom. In *No Limits Media Studies from India*, ed. Ravi Sundaram, pp. 121-140. Delhi: OUP.
- Sunder Rajan, Kaushik. 2006. *Biocapital: The Constitution of Postgenomic Life*. Durham and London: Duke University Press.
- Surie, Aditi. 2017. Tech in work: Organising informal work in India. *Economic and Political Weekly* 52(20): 12-15.
- Surie, Aditi and Jyothi Koduganti. 2016. The emerging nature of work in platform economy companies in Bengaluru, India: The case of Uber and Ola cab drivers. E-Journal of International and Comparative Labour Studies 5(3): 1-30.
- Tapscott, Don. 1999. Creating Value in the Network Economy. Cambridge: Harvard Business Press.
- TRAI. 2012. Telecom Sector in India: A Decadal Profile. New Delhi: Telecom Regulatory Authority of India.
- Terranova, Tiziana. 2000. Free labor: Producing culture for the digital economy. *Social Text* 18: 33-57.

- Thompson, E.P. 1967. Time, work-discipline and industrial capitalism. *Past and Present* 38: 56-97.
- Thornberg, Robert. 2012. Informed grounded theory. *Scandinavian Journal of Education Research* 56(3): 243-259.
- Toffler, Alvin. 1980. Third Wave. New York: Morrow.
- Touraine, Alain. 1971. *The Postindustrial Society*. Leonard Mayhew, trans. New York: Random House.
- Trouillot, Michel-Rolph. 2001. The anthropology of the state in the age of globalization: Close encounters of the deceptive kind. *Current Anthropology* 42(1): 125-138.
- Turkle, Sherry. 1995. Life on the Screen: Identity in the Age of the Internet. New York: Simon & Schuster.
- Turkle, Sherry. 2008. Always-on/always-on you: The tethered self. In *Handbook of Mobile Communication Studies*, ed. James E. Katz, pp. 121-138. Cambridge: MIT Press.
- UNCTAD. 2005. *The digital divide: ICT development indices 2004*. New York and Geneva: United Nations.
- Upadhya, Carol. 2016. Reengineering India: Work, Capital and Class in an Offshore Economy.

  New Delhi: Oxford University Press.
- Upadhya, Carol and A.R. Vasavi, eds. 2008. In an Outpost of the Global Economy: Work and Workers in India's Information Technology Industry. New Delhi: Routledge.
- Varian, Hall. 1998. *Markets for Information Goods*. University of California, Berkeley, 16

  October 1998. <a href="http://people.ischool.berkeley.edu/~hal/Papers/japan/">http://people.ischool.berkeley.edu/~hal/Papers/japan/</a>>
- Veblen, Thorstein. 1975(1899). *The Theory of the Leisure Class*. New York: Augustus M. Kelly.
- Voida, Amy, Rebecca E. Grinter and Nicholas Ducheneaut. 2006. Social practices around iTunes. In *Consuming Music Together Social and Collaborative Aspects of Music Consumption Technologies*, eds. Kenton O'Hara and Barry Brown, pp. 57-84. Dordrecht: Springer.
- Waverman, L., M, Meschi, and M. Fuss. 2005. The impact of telecoms on economic growth in developing countries. In *Africa: The Impact of Mobile Phones*. Vodafone Policy Paper Series 2: 10-23
- Wellman, Barry and Milena Gulia. 1997. Virtual communities as communities: Net surfers don't ride alone. In *Cybercultures*, Volume 3, ed. David Bell, pp. 67-97. London and New York: Routledge.

- Wilson, Samuel M. and Leighton C. Peterson. 2002. The anthropology of online communities. *Annual Review of Anthropology* 31: 449-467.
- Zimmermann and Hans-Dieter. 2000. Understanding the digital economy: Challenges for new business models. *AMCIS 2000 Proceedings*. Paper 402.