**Introduction | Cyberculture in Everyday Life**

**Table of Contents**

1. **Concepts and Contexts**
   1.1 Technosociality  
   1.2 The Space of Technology  
   1.3 Cyborgification  
   1.4 Ecology of Fear and The Law  
2. **Chapter Division and Methodology**
Introduction | Cyberculture in Everyday Life

The rise of new digital technologies of Information and Communication, of which the Internet is the most visible, has introduced an accelerated rate of change in the global economy and socio-cultural practices. A body of work that seeks to deal with, account for, and explain the ways in which every-day practices and realities are changing due to emerging (or emerged) forms of computer and digital networks is clubbed together as Cyberculture. Lev Manovich, in his essay “New Media From Borges to HTML” (2003), identifies a series of social phenomena associated with the Internet and network communications. Manovich writes,

Examples of what falls under Cyberculture studies are online communities, online multi-player gaming, the issue of online identity, the sociology and the ethnography or email usage, cell phone usage in various communities; the issues of gender and ethnicity in Internet usage; and so on. (2003, 33)

He tries to make a clear distinction that ‘Cyberculture is focused on the social and on networking; new media is focused on the cultural and computing’ (34). However, as Jakub Macek (2004) points out, ‘Cyberculture is an ambiguous, confusing, unclear term describing a set of issues. It can be used in a descriptive, analytical or ideological sense. It has a multiplicity of meanings and thus everyone willingly uses at least one of them. (35)’.

Macek’s own typology understands Cyberculture as a ‘socio-cultural formulation’ (35) that is informed by concepts that are utopian, informational, anthropological and epistemological in nature. While it is not the ambition of this project to give a detailed map of how the field has evolved, this introduction tries to provide a brief outline of the concepts and ideas that have shaped Cyberculture discourse and consequently informed the various questions that this thesis seeks to address.
One of the earliest and basic definitions of Cyberculture points to the discussions on new media and marks a cyberpunk movement of hackers’ subcultures that emerged with the first computer and digital networks. Douglas Rushkoff in *Cyberia* (1996) and Mark Dery in *Escape Velocity: Cyberculture at the End of the Century* (1996), both representatives of this understanding of Cyberculture, identified it as a subculture of the digital age that helped imagine an initiation of a futuristic regeneration of society. This viewpoint was perhaps most eloquently articulated by Andy Hawks, who, in his *Future Culture Manifesto*, writes:

“Futureculture, then, is a way of deciphering what tomorrow will look like in a technoculture... Cyberculture is probably most closely associated with the idea of futureculture, yet Cyberculture is often mis-and-over used. If you look at the meaning of the word “cyber”, basically “information” is an oversimplified context, it has little to do with frequently used notions of Cybercultures, specifically a Gibson-esque cyberpunk world as it exists today or in the near-future. (Hawks, 1993).”

The French humanist philosopher Pierre Levy, offers a conceptual framework in his book *Cyberculture* (1997). Levy builds on the idea of a ‘Barlowian Cyberspace’ – a deteritorialized symbolic stage of technology mediated communication where the complexity of the experience depends solely on the complexity of the technology – in order to make a point of departure from William Gibson (1984) inspired metaphorical vision that was an integral part of cybercultural discourses of his time. Levy argues that with the emergence of digital technologies, new forms of knowledge production and distribution emerge which transform not only the ways we manipulate information but the society itself. For him, Cyberculture is the consolidation of this change: it refers to the ‘set of techniques (material and intellectual), practical habits, attitudes, ways of thinking and values that develop mutually with cyberspace’ (1997, 15) and embodies ‘a new form of universality: universality without...”
totality’. Levy’s fiercely optimistic conception of Cyberculture refers to a possibility of ‘creating a virtual participation on your own self (universality) in a way that is different from the identity of meaning (totality)’ (107) betrays the conservative utopian techno-optimism of the 1980s and 1990s, where the spread of digital technologies was directly linked to the regeneration of a new society.

Social Anthropologists like Arturo Escobar offer a wider concept of Cyberculture. In his essay “Welcome to Cyberia: Notes on the Anthropology of Cyberculture” (1996), Escobar posits Cyberculture as research on ‘cultural constructions and reconstruction on which new technologies are based and which they, conversely, contribute to shaping’ (11). He marks a specific point of rupture in the domain on anthropological practice with the emergence of Internet technologies:

The point of departure of this inquiry is the belief that any technology represents a cultural invention, in the sense that technologies bring forth a world; they emerge out of particular cultural conditions and in turn help to create new social and cultural situation(s)...[that] are bringing about a regime of technosociality (Escobar, 1996, 112).

By the turn of the century, though, the optimism that informed Levy and Escobar, was already facing scepticism and mistrust from ethnographers like David Hakken and Sherry Turkle, who questioned the taken-for-granted nature of techno-utopianism. In his descriptions of cyberspace, Hakken talks of a technologically mediated social arena entered by everyone using Advanced Information Technologies (AITs) in social interaction, which can offer insights into life practices and forms outside the digital networks but produced through the AITs. He writes,
Lifeways based on AIT are not only real and distinctly different; they are transformative. The transformative potential of AITs lies in the new ways they manipulate information. The new computer-based ways of processing information seem to come with a new social formation; or, in traditional anthropological parlance, cyberspace is a distinct type of culture (Hakken 1999, 1-2)

Hakken’s privileging of the informational and transformative powers of the AITs and their role in producing socio-cultural artefacts and lifeways was speculative as it was conceived of just before the Internet went popular and social media became a naturalized term. Writing at the turn of the millennia, and after the neck-break speed of Internet adoption and usage in the 2000s, Lister et al produce a more comprehensive understanding of Cyberculture. They see Cyberculture as a cultural context of Information and Communication Technologies (ICTs), characterized by its themes – programming, software, communication networks, artificial intelligence, virtual reality, robotics, synthetic life, etc. The language of cyberpunk fiction and films still provide the language, meaning and values that shape Cyberculture discourse but they are no longer hinged on futurisms. As Lister et al write,

[Cyberculture is used to refer to the theoretical study of Cyberculture...that is, it denotes a particular approach to the study of the “culture + technology” complex. This loose sense of Cyberculture as a discursive category groups together a wide range of (on many levels contradictory) approaches, from theoretical analyses of the implications of digital culture to the popular discourses on science and technology journalism. (Lister et al 2003, 385)

Even in this brief mapping out, we can see that Cyberculture refers to subcultures (gone and emergent), contemporary socio-cultural practices, potential forms of future society and
groups, theoretical visions of human-technology relationships, and cultural artifacts of everyday life. The examples I give (subcultural, literary and theoretical) are only representative in nature and there has been a rich discourse on what constitutes Cyberculture and how to study it, in different disciplines and geo-political conditions\(^1\). My interest is to identify the knowledge gaps and blind-spots of this discourse, not contingent upon an exhaustive mapping of the field but invested in recognising some patterns that disciplines as varied as anthropology and robotics inherit in their engagement with the cyberspaces.

There are three particular sets of knowledge gaps which help me build on my formulation of the Technosocial Subject:

First is the celebrated rhetoric of how “the world is flat” (Friedman, 2005) and that Internet Technologies are levelling the geography and differences, producing exactly similar practices and subjects around the globe\(^2\). This particular argument is fuelled, in part by the digital aesthetic of making seamless copies, and in part by the market driven idea of a shrinking world that is only a click away. As a result, we have a majority of research that concentrates on developed worlds with a much larger Internet penetration and presumes that the rest of the world also experiences the emergence and rise of technologies in the same way Technology mediated subjectivities thus, are imagined as the same everywhere. People who are outside the folds of these technology practices are sought to be “rehabilitated” to become just like everybody else.

\(^1\) Jakub Macek’s essay on “Defining Cyberculture” remains one of the most comprehensive recapitulation of the various ways in which the term Cyberculture has been used and understood in its short history, at least within a Euro-American context.

\(^2\) Friedman, in his book *The World is Flat* looks at 10 flatteners of the technologised world- economic production and commerce structures, the emergence of global flows of information and the hegemony of universally adaptable machines feature in them. For Friedman, who drew the title from a statement made by the Technocrat Nandan Nilekani (2009), so strong is the neo-liberal paradigm of the market as the only decision maker, that all other diversities are flattened out.
The second blind spot is created by the pervasive and persuasive alternative realities and virtual worlds that have emerged within cyberspace. These digital universes are so self-contained, immediate and infinite that it is very easy to forget the larger contexts within which they are embedded. Significant effort has gone in exploring, explaining and providing insider information on the new spaces and experiences that cyberspaces throw up at an accelerated rate. This is compounded by the out-sourcing models deployed by the ICT multinational companies that also imagine that social contexts, cultural diversity and geopolitical arrangements can be overridden and bypassed by the almost endless reach of Internet technologies. Thus, there is research that confines and contains itself only within the digital and virtual circuits, concentrating only on the virtual and overriding the physical purports and ramifications of these technology interactions.

Third, the scholarship and discourse, from Cyberculture, which are informed by and contribute to Cyberculture, remains isolated in their inquiries around the production of technology mediated identities and subjectivities. Either the research remains focused exclusively on the experience of cyberspace (and the ways in which people interact, mediate, mobilise and network online) or it concentrates only on development studies interested in the questions of access, exclusion, enablement, infrastructure etc. There are very few studies that locate the digital experiences and platforms in relationship with the rapid changes in the physical world. Within human-technology studies, the material practices of the people and the dialectics between the virtual and the physical are not factored in and what we get is either abstract ideas that do not have a material grounding, or an everydayness of technology mediated identities that do not have a conceptual value.
The chapters in this dissertation do a symptomatic reading of various cases and significant developments in the rise of Internet technologies in contemporary urban India. They develop a theoretical perspective that treats technology as central and integral to the practices of what I call the ‘Technosocial Subject’ rather than being merely instrumental or functional. The dissertation identifies some of the crises that early technology studies – especially in Cyberculture – and how they have shaped our understanding of technology-individual relationships. I intend to re-visit these different crises in the Indian context, which cursorily seem to reflect common trends in other parts of the world, in order to show how they challenge existing concepts, ideas and theoretical frameworks within Cyberculture. In the process, I demonstrate how the existing research and scholarship on Cyberculture is flawed in its attempt to produce universally identifiable, common resolutions to events and occurrences which require a detailed contextualisation. This contextualisation through time, through space and through histories of human-technology interaction, offer new insights into understanding material practices of the Internet, the changing patterns of regulation and control, and the new forms of citizen-state relationships which emerge with the spread of technology mediated governance.

The changes that the rise and spread of Internet technologies have ushered in, in countries like India, are clearly manifest in the emergence of new cultural and symbolic forms of expression, spatial reconstruction of city spaces, forms of governance and state-citizen relationships, and emergence of new lifestyle and consumption patterns. Inscribed within all these changes is the production of technology-mediated identities which are produced in the material and everyday transactions with new digital and Internet technologies. Some of the changes that accompany these technology mediated transformations are examined in this dissertation – the emergence of new cultural and symbolic forms of expression, spatial
restructuration of cities, production of technology mediated subjectivities, and inherent tensions as these identities negotiate with existing regulation regimes – to see how the rise of a new technology (and the tools that come with it) significantly alter the processes by which a technology mediated social subjectivity is produced.

It is not my intention to propose a new theory of technologised subjectivity. Instead, I begin with a common sense understanding of Subjectivity as has been considered in Cyberculture literature and theory, as emerging out of transactions and negotiations with new technologies. The dissertation is more interested in looking at the contextual production of such identities and a further examining of the different crises that such identities signal; crises, which, in contemporary discourse, are often neglected or produced as false binaries. Such a mode of thinking relies less on the study of the content of technology, as do the disciplines of media studies and Cyberculture, and focuses upon how technologised forms materially inflect existing ways of living. In this dissertation, the Technosocial is produced as unique to a particular context and location and not easily universally replicable. While there might be certain similarities in how technologies – especially Internet technologies – emerge and make themselves manifest in different information societies, the points of departure produced by the stakeholders and actors in the field produce specific Technology mediated identities which need to be explored contextually.

I begin with the clarification that the while I am aware of and often situate the dissertation in a much larger discourse around technologies of mass production, the particular interest is in the early days of the emergence of Internet technologies in India. The Internet has produced many kinds of forms and objects. However, my primarily focus is on cyberspace as one of the largest public spaces shaped by the Internet, though not necessarily contained within it. Also,
while there is an account of the emergence of cyberspace in India, documented through popular stories and case-studies, the dissertation does not deal either with the history of the Internet in its material sense – hardware, technology, protocol and programming – or with the questions of convergence and legislation that often riddle the development driven imagination of Information and Communication Technologies For Development (ICT4D) agenda.

Additionally, I place cyberspace in the realm of cultural production and hence will be drawing largely from popular and populist techno-cultural productions (and the theories that deal with them). In the instances when I do look at the cyberspace platforms of cultural production – blogs, micro-blogs, social networking systems, user generated content sites, peer-to-peer (p2p) sharing, etc. – the interest is in looking at how these platforms, often dismissed as faddish or sub-cultural, provide a more complex understanding of the rapidly globalizing and digitized world. I thus, veer away from either providing insider reports of what happens in the digital spaces or from quantitative or qualitative data collections to measure impact and effect of Internet technologies on various populations. Instead, I seek to produce a framework that is simultaneously grounded in material practices and draws from philosophical inquiries towards a more fruitful engagement with questions of technology mediated subjectivities and the related practices. In the process, I hope to capture the more complex human-technology relationships that include affective tropes of engagement, contexts of regulation and policy and material changes in lifestyle. I show how such a

---

3 The Information and Communication Technologies For Development (ICT4D) programmes and projects have been specifically interested only in questions of access and infrastructure without taking into account either the contexts or quality of these interventions. Michael Edwards’ (2012) position paper ‘Thick Reality, Thin Solutions: How NGOs can bridge the gap’ on the problems with the ‘NGOisation of Technology Development’ gives a fair idea of how there has been a growing discrepancy between the real problems at stake and the ICT4D solutions that have been developed in the last two decades.
contextualization helps in better understanding technology-mediated identities which are rapidly becoming central to the changing governance structures in India.

While the dissertation seeks a point of departure from the larger body of Cyberculture literature which has emerged in many different disciplines, it also borrows concepts and contexts which have been formulated around the question of technology and subjectivity, which I seek to build upon and find necessary to introduce here.

1. CONCEPTS AND CONTEXTS

1.1 TECHNOSOCIALITY

Scholarship in Cyberculture has been interested in exploring the relationships between the virtual and physical worlds since the very rise of Internet technologies. Technology studies have concentrated on how the building of technology infrastructure and the new configurations of State-Citizen-Market relationships shape and are shaped by the emergence and widespread adoption of Internet technologies. Steven Miller (1996), in his study of the National Information Infrastructure (NII) in the USA, despite his interests in policy and regulation, privileges the Internet as the new space that is outside of the geo-physical nation about which he is writing, and hence having the powers to produce benefits and conditions which will help in re-creating the nation.

We--The American people--are not building a national information infrastructure so that a handful of firms can make money from the NII itself. We are building it because of the benefits we hope the entire nation will derive from that the NII makes possible. Achieving those benefits requires policies that lead, slowly but definitely, toward universal service. (p. 207)
He also writes,

Universal service means having use of the tools required to receive, utilize, create, and send basic types of transmitted material. It means getting adequate training to know how to use equipment for the desired results. It means being able to participate in meaningful commercial and noncommercial online activities that make it worthwhile to use the system and allow users to speak in their own voice. (207-208)

Literary and communication theorist Brenda Danet (1997) in her analysis of a “Virtual Party” that happened on an IRC channel is able to demonstrate how the referents from physical practices and contexts get translated, morphed and mutated in the virtual worlds. In playful ways, this process of translation affects not only the perception of the virtual avatars but also of our material bodies:

Cyberspace is by no means wholly benign, and IRC is no exception…The synchronous modes of CMC can release aggressive, even shockingly malicious behavior, including sexual harassment and racism. Moreover, people can get themselves into fairly unpleasant RL trouble. One striking example, by now well known on the Net, is the case of the New York male psychiatrist who misled a number of co-participants on the CB channel of CompuServe into believing he was a woman (Danet, 1997)

While both these authors are already moving out of the Real-Virtual binaries and trying to establish a new order of relationship between the virtual and the physical, instead of looking at them as mutually exclusive, virtuality still remains central to the conception of cyberspace which is described using spatial metaphors. There is a sense of travel in the very etymology
of the word cyberspace, which gives the notion of how the individual users within cyberspace, travel to a mythical land behind the interface, leaving behind their real bodies and having out of the worldly experience. However, as this experience seeks to simulate the experiences of the body left behind, this world is looked upon as fantastic or one of escape.

The cyberpunk fiction inspired by William Gibson (1984), who was among the earliest to propose this divide, only adds to these binary divides of the virtual and the real, the meat and the machine. Legacies of Virtual Reality have been so deeply ingrained in Cyberculture studies that it has merited the acronyms of VR and RL (Real Life) which are in currency throughout the blogosphere and in popular descriptions as well as in scholarship around the Internet.\(^4\) Theorists, starting with Arturo Escobar, have effectively introduced the notion of bridging the gap between the so-called Virtual and the Real, to look at cyberspaces as constitutive of the Real. Arturo Escobar (1994) pointed out that computer and information technologies set into motion a process of ‘Technosocial construction’ – a new order for the production of life, nature and body, through technological interventions. He observed that

Cyberculture refers very specifically to new technologies in two areas- artificial intelligence (particularly computer and information technologies) and biotechnology...[that] embody the realization that we increasingly live and make ourselves in techno-biocultural environments structured indelibly by novel forms of science and technology (1994, 214).

In these ‘ techno-biocultural environments’, technology is no longer juxtaposed against the organic but redefines a world where the boundaries between the natural and the cultural, organism and machine, are permeable, allowing for assemblages or mash-ups of machine,

---

\(^4\) As recently as in 2007, the International Conference on Virtual Reality was hosted in Beijing and the proceedings were published in an anthology titled *Virtual Reality*. (Shumaker, 2007)
body and space. Such a positing of a technosociality forces us to locate the subjectivities in a state of continuous interaction and negotiation with the physical and the virtual. It also moves away from the metaphor of the space and imagines the cyberspace as produced out of processes and transactions, through the different forms like databases, networks and archives.

The feminist scholar of digital technologies, Sandy Stone elaborates these processes in more detail. She posits that

In technosociality, the social world of virtual culture, technics is nature. When exploration, rationalisation, remaking, and control mean the same thing, then nature, technics, and the structure of meaning have become indistinguishable. The Technosocial subject is able successfully to navigate through this treacherous new world. S/he is constituted as part of the evolution of communication and technology and of the human organism, in a time in which technology and organism are collapsing, imploding, into each other (1991, 81).

While Stone’s articulation remains in exploring the ‘social world of virtual culture’ to forward her own dissertation, it logically extends to look at another phenomenon, which is the ‘virtual world of social culture’. Technosociality, by straddling the two worlds together, and by looking at the spills and overflows of one into the other, blurs the boundaries between the real and the virtual. What it produces, instead of a Virtual Reality, is virtuality which is not removed from the reality but a constitutive part of it. Such an understanding of Technosociality helps shape my project outside the expected realms of digital and Internet circuits. Instead, it looks at the larger ecologies of fear, tension, crises, and legal combats that inform the shape, the form and the manifestation of Internet technologies and practices in the country.

---

5 The virtual world of social culture indicates how the digital domains of cyberspace and Internet have perpetrated and become so central to the mechanics of urban survival that, indeed, the virtual world has become constitutive of the so called Real.
1.2 The Space of Technology

Even before cyberspaces came to populate the public imagination, various scholars, especially with the advent of digital media, had already begun conceiving the city as a site upon which the relationships between emerging technologies and social organisations have been inscribed. For example, new media theorist Marshall McLuhan (1964) suggested that ‘any (new) technology gradually creates a totally new human environment’ (34) which eventually leads to the technology becoming a ‘habitus or a space of living’ (67) which sustains the production of the social, cultural and political imaginations.

With communication technologies, the shrinkage of distance and time (Giddens, 1985) became the parameters by which functioning and unfolding of the city – the masthead of modernity, underwent dramatic changes. Different scholars have formulated different ways by which the technology and space configurations can be calibrated. Ackbar Abbas (1997), in his work on Hong Kong notices a ‘condition of disappearance’ for the territory, where the need to sustain the economy and the height of globalisation produce it as

...not so much a place as a state of transit... not as a “third space” that can be located somewhere; not as a neither-nor space that is nowhere; not even as a mixed or in-between space, if by that we understand that the various elements that make it up are separable. Above all, hyphenation refers not to the conjunctures of “East” and “West”, but to the disjunctures of colonialism and globalism (143).

Jai Sen (1989), in his essay on “Unintended Cities” takes up the perspective of planning to examine the ways in which different technologies shape and influence the physical plans and execution of city spaces. Pico Iyer (2001), in his search of The Global Soul, looks at the
processes of consumption that come with technology and produce certain ‘shallow spaces’ like the Airports. Commenting on the seamless flow of technology through these spaces of constant movement, he says that in the technologised worlds that we live in, ‘Everywhere is so made up of everywhere else (183).’ Chua Beng Huat also contributes to this idea of consumption as producing and shaping the physical materiality of urban design and planning. In his work on Consuming Asians (2000) he identifies the coupling of technology, consumption and lifestyle as creating and shaping the urban experiences in cities like Singapore. David Harvey, the urban geographer, looks upon technology as leading to a ‘reorganisation of social structures’ (1989) that produces new spaces of social interaction and mobility in the panning of a city. Drawing from the discourse in Architecture and Design, Marcos Novak (1997) introduces the idea of ‘transmitting architecture’ in an essay by that name. In the essay he writes,

Space is no longer innocent. Under the impact of science and technology, ordinary space has become just a subset of a composite "newspace" that interweaves local, remote, telepresent, interactivated, and virtual spacetime into the new spatial continuum that is the focus of emerging transarchitectures (Novak, 1997, 205).

On the other side of Novak’s lyricism is urbanist Paul Virilio, who, in his work that predates the mass adoption of Internet technologies already foretold that the new cities would be cities that shall house new technologies. Virilio, in his book The Lost Dimension (1991), suggests that these technologies can unify ‘immense territories into one city (34)’, thus producing new ways of navigation and mobility.

In all these studies, there is no attention given to the redefinition of the city as linked to the emergence of new subjectivities – group and individual – that come into being with the
emergence of new technological forms. With the telecommunication technologies, we had, perhaps for the first time, communities and groups that are formed, housed and sustained by the medium. Earlier forms like cinema and television have resolved the anxiety around the notion of space by making the spectator as the supreme receptacle of meaning and interpretation. Following the trajectory of this association of technology, space, and body, some of the earliest theorists formulated the notion of the cyber-publics (Sundaram, 2001) as residing within the cyber cafes and formed within the collective networks that sprout up in neighbourhoods. The machines serve as nodes in the circuits of digital consumption and proliferation. This move to look at the physical spaces that house the cyberspaces has been extremely significant and important to rescue Cyberculture from being contained only within the digital domains of virtual interaction and community building. However, this direct link between the physical anchors of Internet technologies and the experience of cyberspace does not take into account the subjective interpretations, investments and imaginations of who we are online.

As computing increasingly becomes mobile and interfaces of cyberspace access no longer remain confined to the large and stationary screens, the shape of cyberspace usage and the spaces that house them have also changed. The first instances of these changes can be found in the architecture and the sprouting up of globalised spaces of consumption. Traces can also be found in new spaces of social interaction and socialisation – malls, multiplex cinema houses, new age coffee houses, large commercial roads and complexes, lifestyle shops and body sculpting salons – that have also emerged to house the aesthetic if not the technologies that foster cyberspaces.
Within cyberspaces, individuals meet at random in virtual spaces to interact with each other through tools that are unique to the Internet. In the process they convert these virtual platforms into spaces simulating physical structures as can be illustrated in case of Multiple User Dungeons (MUDs)⁶ and text based chat rooms, or in forming relationships and communities which stay within the medium – a feature that can be observed in the instance of Social Networking Systems (SNS)⁷ and Blogs. However, as cyberspace no longer remains restricted to the computer screens on our desks but is made available ‘through Wireless Local Loops (WLL) nodes, through cell phone networks, through IMAX theatres’ (Rheingold, 2000) and hand held palm tops, the way these social patterns are constructed and performed, are diverse and unprecedented.

Mizuko Ito in her study of young children engaging with the legendary Internet game SimCity2000, points out that the generation that is growing up internalising digital technologies is already looking upon the city as a space that relies ‘on cellular automata techniques, creating an impression of lively growth, interactivity, and change – a sense of the city as a living entity’ (2009, 164). Elinor Ochs points out that the interactions of the users with the representations ‘is a means not only of representing [possible] worlds but also of imagining or vicariously experiencing them’ (Ochs et al, 1994).

Howard Rheingold pointed out these ‘Virtual Communities’ straddle two worlds in their formation. On the one hand, they are the ‘communities of shared meaning’ (Carey, 1989) that emerge within cyberspace, and on the other, they also inhabit the physical world of social

---

⁶ Multiple User Dungeon: A text based social communication interaction platform that originally started with the game of Dragons and Dungeon, wherein the users could go and relive the game all over again.

⁷ Social Network Systems work towards expanding the social network of the users. Each user is given the choice of inviting his/her friends onto the network who in turn get to invite their own separate friends. In the process, the members inherit each other’s friends, till sometimes up to five levels of recognition. They also facilitate activities like dating, partying, meeting, etc.
activity and interaction. However, these formulations seem to suggest that this straddling of
the two worlds happens in the same way all around the world. Carried away by the idea of a
‘global community’, these theories do not take into account that the Computer Human
Interaction (CHI) communities negotiate with the market and the state at different levels and
hence the contexts that they exist within play an important role in their shaping. The
cyberspaces, with their decentralised structure and the ability to evolve at an almost cellular
level are deeply affected by the material practices within which the users shape these digital
forms. When looked through the framework of the forms of cultural expression, cyberspaces
can no longer be universal but contextual, developing, evolving and sustaining the different
activities through an engagement with the interstices between legalities and regulation.

Urbanisation and reshaping of new cities to support the global flow of economy – through
outsourcing centres, through development of Special Economic Zones, through construction
of IT and Mega Cities – has been one of the most obvious effects of technologised
globalisation. The metaphor of space was so firmly entrenched within early Cyberculture,
primarily because the cyberspaces seemed to be de-linked from the physical, tangible
material practices of everyday life. With the new Asian urbanisation and the emergence of IT
capitals of the world – Shanghai, Taipei, Tokyo, Bangalore – there has been an increased
interest in looking at the spatial dimensions and implications of ICTs (Abbas, 1997; Huat,
2000; Novak, 1997; Krane, 2009). The attempt is to locate digital media, not only within the
digital matrices or economic circuits of labour and capital, but to see how they create new
forms of spatial interactions and negotiations.

This physical anchoring of the Internet technologies suggests that there is a need to
understand the Internet technologies as a constitutive part of our material reality. It also
establishes a more complex relationship between the use and presence of Internet
technologies and the changes in urban cityscapes. I do not merely mean a change in the
architecture or planning patterns that can often be attributed to models forwarded by new
technologies. Instead, I want to foreground that ubiquitous computing and Internet presence
changes the very way in which we understand the city and in effect exposes the influences
that the contexts have in the shaping of these new networks of life, labour and language.

1.3 CYBORGIFICATION

The fusing of these spheres – of the physical and the virtual, the digital and the sensory, is
best understood in the processes of creating a cyborg – cyborgification. The concept of
production of the self within Technosocial spaces is perhaps the most visible within Donna
Haraway’s notion of the cyborg- ‘a cybernetic organism, a creature of social reality as well as
a creature of fiction…The cyborg is a matter of fiction and lived experiences’ (1991, 82). The
earliest definitions of the cyborg have vaguely hinted at an organic-mechanical coupling
drawing from visions of androids or bionic humans, to look at the boundaries between the
real and the non-real, the biological and the mechanical. Haraway’s cyborg, however, rests in
the ‘optical illusion between social reality and science fiction’, thus defining a ‘technological
polis’ that rests on the blurring of three boundaries of biological determinism, organism-
machine, and the physical-non-physical Haraway also hints at how we are all in a process of
becoming cyborgs – she calls it ‘cyborgification’- as our lives become increasingly intimate
with machines and technologies in the age of cyberspace.

Haraway further asks the question: What are we to make of the cyborgs that we have created.
A troubling figure that lives on the boundaries, irreducible to the binaries of human/machine,
human/animal, nature/technology, the cyborg inhabits both worlds simultaneously, our knowledge experience and imagining of it distributed across its multiple sites.

From one perspective, a cyborg world is about the final imposition of a grid of control on the planet, about the final abstraction embodied in a Star Wars apocalypse waged in the name of defense, about the final appropriation of women’s bodies in a masculinist orgy of war...From another perspective, a cyborg world might be about lived social and bodily realities in which people are not afraid of their joint kinship and machines, not afraid of permanently partial identities and contradictory standpoints. (Haraway 2000; 295)

Haraway’s reflections on the cyborg is to look for alternatives, to search for other kinds of cyborgs, other places where we meet cyborgs, and other ways of thinking about them.

By the turn of the century, even as Kevin Warwick⁸ was busy transforming himself into ‘the first living cyborg’, David Bell (2000) was able to think of Haraway’s cyborg as an ‘everyday cyborg’ as embedded in a crucial mechanics of urban survival, where urban social reality functions as an information system. His cyborg did not exist between improbable neural networks of neural-interactive simulation but in a performative relationship between human beings and the technology that they use to define themselves and the world around them. He writes,

It is this performative relationship that defines technosociality – that for the users of these technologies, the content and capabilities of one system seem to affect the ongoing social activity in another, thus creating similar environments in both the worlds that they simultaneously straddle. (Bell 2000, 12)

---

⁸ A professor of robotic technology, Warwick experimented upon his own body to aide and enhance his “senses” by installing neural chips and prosthetic circuits in himself. David Cronenberg’s film Crash (1996) had already put forth the idea of prosthetic symbiosis to demonstrate a notion of cyborgification.
Theorists like Turkle (1996) could imagine the cyberspace as a “postmodern context for playing with the self” (202). However, as the notion of a cyborg slowly becomes a lived possibility and as other fields like Biotechnology and Artificial Intelligence in particular, prepare to embody the cyborg as Manfred and Clynnes (1960) originally intended it to be, we need to do a reverse suturing of the cyborg as a physical being, retrieving it from the domains of the virtual.

One would want to explore whether the processes of cyborgification are imposed from the outside or can be looked upon as a conditioning of the human subject into interacting meaningfully with its immediate urban environment. Does the cyborg remain in the imaginations of the city and the urban or does it transcend these boundaries? Does a physical cyborg become a gendered being? Is cyborgification just a synthesis of machine and body or are we indeed living in an age of ‘Natural Born Cyborgs’ (Clark 2003). It is necessary to look at the material practices of regulation, containment and interaction that produce these cyborg subjects.

1.4 Ecology Of Fear And The Law

Technosocial subjects are already moving markets and transforming industries, education and global politics. However, this transformation is accompanied by a growing sense of danger and fear about being online and is almost integral to our imaginations of cyberspaces. Parents, educators and psychologists all have legitimate concerns about the digital environments as younger users spend an increasing amount of time online. Social and

---

9 Mike Davis, in his conception of cinematic representations of LA and how they shape surveillance and policing patterns in the physical city, coined the phrase “Ecology of Fear”. I use it cursorily right now but will explore it in greater detail in Chapter Two Techno-social Spaces
political leaders also have a cause of concern as they see the arena of the political and the forms of mobilisation undergoing quick transitions as more people embrace these new technologies of viral networking and social communication. Corporations see their revenues at risk in industry after industry – recorded entertainment, telephony, newspapers and so on. And this growing sense of fear leads them to look at the law– globally and contextually – to provide them with directions and resolutions. Lawmakers, responding to the sense of crises, often come up with knee-jerk reactions which are detrimental to the environment of creativity, self-expression, innovation, social transformation and political participation that the new wave of digital revolution has ushered in.

The media feeds the fear. News coverage is saturated with frightening stories of online pornography and predators, Internet addiction, cyber terrorism, and thefts – of identities, property and lives. There are no well developed signs and symbols that remind us to be careful in the largely unsupervised digital environment. We leave traces and often commit acts which might not always be legal or safe. We expose ourselves to unnecessary threats – especially true in the case of younger children – and more than often, face unexpectedly traumatic behaviour in our interactions online. It is this ecology of fear that allows for laws that ignore the tremendous potential of cyberspaces and put blanket bans on activities that are sometimes fundamental to the opportunities in the digital environment. Many legislations or legal battles have not only resulted in a severe abuse of public resources around the globe, but also resulted in calamitous repercussions which were unforeseen.

The ecology of fear enables the State and the legal apparatus to produce conditions of illegality that can be used against the citizen who leaves traces of usage, interaction and presence through the use of digital technologies. It leads to the construction of fetishised
identities that emerge need to be deconstructed and mapped against a much larger picture of the State’s visions and imagination of digital technologies. It is also necessary to examine how these fetishised Technosocial subjectivities also allow for certain kinds of violence to be justified as they add to the anxieties around us. Moreover, one needs to see the inherent tensions in the fact that the law, on the one hand, becomes the State’s arm in containing and chastising these subjectivities, and on the other, also becomes the biggest actor in creating such identities, often against the will or beyond the understanding of the human actors involved.

2. CHAPTER DIVISION AND METHODOLOGY

Within Cyberculture studies, there are two distinct modes of inquiry that inform the methodology of the research. Researchers who are interested in decoding the practices, impulses, and conditions within which users operate online, have relied on new methods like cyber-anthropology and cyber-ethnography, using the distributed networks within digital communities in order to gather more information about their digital practices. However, even within new anthropological interventions, there is a distinct understanding that it is necessary to understand the digital as a ‘cultural invention’ (Escobar 1996, 112). In his challenges to the disciplines of anthropology, Escobar in fact goes out to suggest that one of the challenges in new research around techno-science and the techno-social, is to make visible, the detail of phenomena, in ‘description.interventions that point to the concrete and to heterogeneity’ (228).

There is a distinction that he formulates, which finds resonance in the work of Cyberculture scholars like David Porter, who in his introduction to Internet Culture, emphahsises the need
to find a difference between ‘A culture born in the Internet’ and a ‘Culture of the Internet’. Porter suggests that while there is value in our ethnographic engagement with the field of Internet studies, there is also a growing need for understanding Internet through the space of culture, looking at textual analysis to identify spaces of common behaviour and belonging online.

Similarly, research inquiries that are based in the disciplines of business and development, are interested in physical practices, locations and contexts, observing how the users access, use and adopt digital technologies and what are the ways in which infrastructure needs to be developed in order to further the rise of the internet and digital spaces.

However, within Cyberculture inquiries that arise out of Humanities and Cultural Studies, there is a growing reliance on secondary and tertiary material that analyses the existing discourse in order to find larger patterns of thought and argumentation within the field. As Jonathan Sterne maps out in his critical essay on ‘The Histiriography of Cyberculture’, ‘we need a richer sense of the history of Cyberculture and the larger histories of which Cyberculture is a part (25).’ He argues, ‘if we expand the range of technologies and practices admitted to the domain of Cyberculture studies, we will also have to develop coherent explanations of how the history of Cyberculture fits into larger histories’ (25). Sterne’s proposal is that the push of new research has to be beyond the traditional objects of study and anthropological ways of studying. Instead he proposes that the impetus be in looking at different disciplines and how they approach the same questions, concepts and ideas, in order to provide a more comprehensive and complex view of the phenomenon. This particular mode of discourse analysis allows for a symptomatic reading of the case under discussion, and while it acknowledges the complementary richness of field-work and standard
sociological tools of primary data production, it positions itself as a discursive intervention towards knowledge production in the field.

This dissertation is situated in the latter methodological spectrum, and to make my arguments, I rely largely on secondary and tertiary data rather than primary ethnography. The focus of the dissertation is on formulating a conceptual argument rather than in collecting data and adding to already inflated data streams which often end up mimicking each other and show similar patterns. The primary methodology is an analysis of practices of the Technosocial Subjects to understand the socio-cultural implications of emerging popular technologies and technological forms in the lived experiences of the contemporary urban in India and similar emerging information societies.

The literature reviewed ranges from scholarly academic books and peer reviewed journal articles to mainstream published narratives in newspapers and websites to grey literature on blogs, reports, and internet archives. The perspectives that are analysed emerge from a clutch of related but diverse disciplines like Cybercultures, Digital Humanities, Artificial Intelligence, Robotics, Science Fiction and Fantasy, Sociology, Geography, Architecture, Urban Planning, Science Technology and Society Studies, and Internet Studies. The dissertation makes a strategic choice to engage in this particular mode of literary mapping and review because it recognises that especially within the Indian context, this work has been missing. Through the dissertation I hope to produce a comprehensive and critical mapping of the field as well as a fundamental framework, which, when applied to different communities might yield fruitful results in understanding Technosociality.
Each chapter maps different perspectives and ideas around technology-mediated identities as they have emerged in influential literature from around the world and landmark practices which have garnered attention in India, to better understand the idea of Technosociality and the dialectics of the virtual and the physical in constructing the Technosocial Subject.

The dissertation argues that cyberspace is a new realm of cultural production, especially for young users of digital technologies, who have incorporated cyberspaces integrally, in their daily functioning. As more and more people turn towards digital cyberspaces for their needs to communicate, interact, network, innovate and create new forms of expressions, new crises emerge and resolutions have to be found. Novelty or newness has been a standard trope that has marked both the descriptions of cyberspace and the kind of questions that emerge. However, this dissertation wants to veer clear of either the euphoria or the techno-anxiety that such an approach demands, and talks about the newness, not as something original or unique to digital cyberspaces, but as re-surfacing of older problems, which each ‘new’ technology has always had to face.

The first chapter begins by looking at substantial literature around an identity that is central to the imagination and discourse around Internet technologies across the disciplines – Digital Natives. Young users of technology, in different contexts, who have experienced a significant transition in their everyday practices because of the presence of digital and Internet technologies, are probably the most researched and written about. A large part of Cyberculture discourse revolves around bridging the gap between what the Digital Natives do and what the people around them should know.
In looking at the substantial literature (published scholarly work, but also grey literature online and in unpublished writing), the first chapter charts out the major sites of contestation that have been produced in critical interventions around Technosocial subjects and practices. It recognises that some of the discourse around Digital Natives is specific to the particular age group that is under study, but for a large part, the discussions around it are symptomatic of much larger anxieties around the Internet which exist in other studies. I also find it relevant to focus on Digital Natives because when talking about the early days of Internet technologies in the country, the users, the adopters, the people who have been involved in cultural production and consumption, are these very users of technology.

The second chapter addresses the emerging crisis in body and technology relationships by exploring the cyborg as a category that has gained currency in technology and Cyberculture studies. It begins by looking at the cyborgs as they have been portrayed in popular fictions and how they shape our understanding of the relationship between the selves that we create online and the much larger consolidated human subject that we imagine as controlling these various selves. It identifies a need to add to the debates on gender, sexuality and labour that Donna Haraway initiated and emphasises the need for material and embodied identities to understand a series of changes that are emerging in our everyday lives. It further looks at the homogenizing and universalizing principles of the cyborg discourse, and proposes the Everyday Cyborg as a Technosocial Subject who resists, through historicity of technologies and geo-cultural specificities, the larger discourse of human-technology engagement.

The third chapter places the technosocial subject in a physical world, in its everyday practice and explores how this produces a new anxiety in thinking about the technosocial spaces that we live in. The implication of technology in the production of physical places like Special
Economic Zones (SEZs) which are mushrooming around the country is obvious. However, the chapter focuses on other spaces of consumption, of negotiation and of interaction, which are more tenuous, less permanent but inflected by digital cyberspaces in their very unfolding and structure. Looking at social networking systems and other digital spaces of “being”, the chapter locates a certain “ecology of fear” that surrounds a post-human imagination which guides the popular discourses and socio-legal understanding and regulation of such bodies. The chapter posits the Technosocial subject as straddling multiple worlds and looks at the practices (often arising out of fear and anxiety) that shape Technosocial subjectivity in a rapidly digitising world.

These are spaces which are often not recognised as having direct links with digital cyberspaces and not easily understood as the physical anchors of cyberspatial cultural production. The chapter begins by looking at the first flash-mob in India, with specific interest in the production of a flash-site, and what the notion of the flash-site does to the notion of a happy resolution of the space-place tensions. It also draws our attention to the changing nature of political engagement and social transformation that is often rendered invisible or gets discounted because of the belief in the resolved space-place conflicts. It offers a way of reading the act of cultural production within digital cyberspaces, as more than entertainment or expression, and as defining Technosocial subjectivities as involved in the larger socio-political contexts.

The fourth chapter recognises that the law is a major player in the production of Technosocial identities and that not all Technosocial subjects are equally conscious, or have the agency of making informed decisions about their digital choices. The technologised enablement of economies and lifestyles leads to the production of bodies that are at the same time, fetishised
and yet not immediately within the reach of the law. For example, a focus on technologised bodies as produced through genetics or experiments in biological life sciences is under the scrutiny of the law. These bodies are regulated in their being and in their material practices. A premium is placed upon the role of new digital technologies in the fields of medical science and reproductive techniques to keep a check on processes of producing clones, hybrids, cybrids etc. However, bodies inflected by technological prostheses are not the only ways in which these Technosocial identities are produced.

The production of Technosocial bodies is not so well regulated and indeed, in many cases, not even understood by existing legal paradigms. The law and the judiciary system are quickly orienting themselves to thinking of the citizens’ bodies as mediated by technologies and rapidly changing their conception of what practices are ideal and what need to be punished, thwarted or changed. In fact, so little academic attention has gone to most of the earlier technosocial bodies and subjectivities that for most of the reconstructions for the cases I analyse, I have had to depend on popular news reportage and media coverage. The lack of academic attention is mitigated by accessing court judgments wherever available and felt necessary. However, I find this ‘thin’ description and lack of analyses of landmark cases that have shaped the technosocial subject in India, symptomatic of a much larger problem of our attention to the digital technologies.

As the fourth chapter shall show, there has been an overwhelming focus on the digital and internet technologies, through the lens of access, usage and adoption. So much so that the larger mechanisms of regulation, control and containment that are shaping the ways in which governance and administration are under-theorized. In the fourth chapter, I complicate the idea of access, which is central to development based technology discourse and looks at three
fetishised identities - the pervert in his cubicle, the terrorist wielding a cell-phone, and the pirate in the network – as Technosocial subjectivities that are, simultaneously, hyperactively imagined and recreated, and materially untraceable and hence potentially omnipresent. Rather than proposing a theory of ontological subjectivity that is newly defined and created by technologies, the chapter tries to question Access as the only trope through which technosocial subjects have been formulated. It pulls together issues raised around the production of subjectivity in the categories of law, regulation and censorship and how they address the new anxieties and crises being produced by new conditions of technologisation.

While I am not trained as a lawyer or a political scientist, and do not intend to provide either interpretations of existing laws or new models of state governance, the dissertation is interested in looking at how the state apparatus is changing with the emergence of technosocial subjectivities and identities. The fifth and concluding chapter looks at how the theorisation of a contextual, embodied and located Technosocial subjectivity, further highlights the need for revisiting the questions of governance and administration for emerging Technosocial States. It draws attention to the fact that the production of Technosocial subjectivity is also an external signifier of the changes that the Indian State itself is undergoing with globalisation and its technologies of administration and governance. It indicates how, in the formation of these Technosocial identities, there is a new vocabulary of governance which emerges. This vocabulary takes at least two forms. One is in the material practices around the belief that the setting up of particular infrastructure and creation of skill-sets, will produce a global work force that shall be a mobile resource available for building IT Cities. The second form is one by which the State, which is positing itself as a
transparent S.M.A.R.T. State\textsuperscript{10} (Buddhiraj and Sachadev, 2005) - also recreates itself through a process of mythification. How this contributes to new forms of Stateness, Citizenship and governance needs to be further examined.

The chapter (and the dissertation) ends by suggesting that the notion of the Technosocial subject, marked as it is by unresolved crises, and fraught with tensions and anxieties, is not merely an imaginary and theoretical concept but has direct bearings on the material practices of socio-political transformation and lived realities in contemporary India. It looks at further research possibilities and the need to push certain other limits – of gender, sexuality, administration, governance, etc. – to get a more comprehensive understanding of the process of technosocialisation, which are a part of this dissertation but also extends beyond the scope of this project.

\textsuperscript{10} Renu Buddhiraj and Sameer Sachadeva (2005), in their paper on e-readiness, talk about the aspiration of being a S.M.A.R.T. State - Simple, Moral, Accountable, Responsive and Transparent – that ICTs promise.