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Researching Middle-Class Consumption in Bangladesh: Contextualising Technology and Moral Economy

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Abstract

Bangladesh is frequently portrayed as a place of poverty, fragility and vulnerability. Such accounts misrepresent a complex, diverse, dynamic reality. Certainly, they deny the narrative of 32 million middle-class Bangladeshis. These accounts constitute a Northern discourse that extends a developmentalist perspective, and positions the global South in terms of a putative deficit. My research is a counter to such narrow, hostile and one-sided representations, by investigating an urban and affluent Bangladeshi middle-class through their consumption of everyday domestic technologies. This is an ethnography of consumption, combining participant observation and semi-structured interviews across 14 households in the city of Rajshahi, Bangladesh.

The thesis operationalises a “theory of domestication”, a theoretical framework that is fixated on exploring the ways technologies are used within the socio-cultural fabric of everyday life, in which households are the key units of analysis. Most significantly, household culture, or as it is denoted by its proponents, “the moral economy of the households” shapes the way technologies are appropriated and consumed. An account of urban infrastructure is implicated in my research which is indeed a novelty for a domestication study and an inevitable component for a research located in countries such as Bangladesh. Infrastructure in Bangladesh must be understood in terms of its irregularity even among the affluent middle-class dwellings. This acknowledgement is in sharp contrast with how infrastructure is represented and positioned in the global North (or, more accurately, Northern accounts of the global North). I note that infrastructural disruptions have prompted the domestication of a new set of technologies that secure alternative and personalised supplies of water and electricity. However, the potential for increasing fragility in the infrastructure of the global North, means that adaptive strategies of middle-class households in Bangladesh, and the global South more generally, should not be understood in terms of developmentalism and deficit.

I highlight that technology is often used to claim and reclaim power and privilege within the household. Hence, the appropriation and consumption of technology in middle-class households is associated with the reproduction of social structure and position. Importantly, it is used to assert a “middle-classness” - the material and cultural possessions of a middle-class

lifestyle - to create and recreate class distinction. My research explores how an urban Bangladeshi middle-classness is crosscutting many global, local and traditional elements and is increasingly oriented toward contemporary transnational developments.

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Chapter 1

Correcting Misrepresentation: Bangladesh is Not a Basket Case

Bangladesh is a country that appears only on the margins of western news and academic interest. When it does, it is usually in the context of catastrophes... this large, complex and dynamic country merits more attention. (Zeitlyn, Janeja & Mapril, 2014, p.16)

Zeitlyn, Janeja, and Mapril (2014) note that Bangladesh is often held synonymous with poverty and catastrophe. Perhaps most famously, Henry Kissinger called Bangladesh a “basket case” immediately after its independence in 1971. However, my research is not a study of the rural poor and disaster as some readers might expect. Rather, my research concerns the urban middle-class in Bangladesh, and their consumption and use of everyday domestic technologies, including infrastructure. My intention is a partial redress of what Zeitlyn, Janeja, and Mapril (2014) call the “Kissinger myopia”, which they assign to many, if not most foreign observers. “Their vision is clouded by local or global politics, they only see the side of Bangladesh that they do not like. This is the ‘Kissinger myopia’” (Zeitlyn, Janeja & Mapril, 2014, pp. 8-9).

Redressing this imbalance, correcting this myopia, is a core intention of my research. It is noteworthy because the misrepresentation of Bangladesh is so significant. Bangladesh frequently makes global headlines for its poverty, sweatshops, infrastructural and bureaucratic failures, corruption and disasters. While there can be no denial of impoverishment, the problem with such myopia is that it is one-sided, partial and incomplete. It encompasses an idea of homogenising poverty, deficiency and lack, which tends to disapprove and conceal the accounts of attainment and possibilities, diversity, complexity, determination, agency and aspirations of the country (Zeitlyn, Janeja & Mapril, 2014). Most certainly, it obliterates the narratives of 32 million people who can be bracketed as middle-class (Bayes, Hossain, & Rahman, 2016), and who have access to a consumer lifestyle and a range of global commodities and services. “Every year, 2 million Bangladeshis join the rank of middle-class and affluent

consumers, and they are highly optimistic about the future, value foreign brands, and are jumping onto the digital bandwagon” (Boston Consulting Group, 2015, para. 1).

At a more personal level, the scholarly impulse for researching the middle-class also stems from my experience of migrating to New Zealand and encountering so many misunderstandings about Bangladesh, Bangladeshi lives, and even my own life, in my new day-to-day interactions. My intention is thus to critique and correct misrepresentations of Bangladesh by exploring the missing and invisible narratives of the Bangladeshi middle-class, of which I am a member.

In addition to correcting a Northern myopia and presumptions, I was also inspired by the female Nigerian author, Chimamanda Adichie’s (2009) profound TED Talk called “The danger of a single story”. By single story she means that defining an experience, situation, and people based on a single account or narrative provides us with incomplete, misconstrued and potentially damaging understandings of other people, cultures and lands. The single story is often built on popular (media) images. Adichie (2009) notes: “The single story creates stereotypes, and the problem with stereotypes is not that they are untrue, but that they are incomplete. They make one story become the only story.” The single story tends to create a hindrance for outsiders to comprehend the other, alternative stories, narratives, and facets of strangers’ lives. She highlights that the single story of Africa and African lives make it difficult for outsiders to imagine and comprehend anything but war, poverty and AIDS. Similarly, after coming to New Zealand, I realised and that the outsiders’ vision of Bangladesh is veiled with the single story of poverty, disaster, and corruption. I realised that Bangladesh is most often recognised through the frames and images of deficiency, catastrophe and failure.

1.1 The Epiphanies of Discovering Misrepresentation

This thesis began with an autobiographical component, and I will continue with this approach, where I situate my life and uncover the moments and stories of becoming aware of series of misrepresentations about Bangladesh and my own life. Though the primary data for this research has come from ethnographic fieldwork that involves participant observation and semi-structured interviews (see Chapter 3), I regard the engagement with autobiographical elements as an important reflexive aspect of ethnographic research. This approach allows the researcher

to uncover her presuppositions, experiences, choices, and actions during the research procedures (Mruck & Breuer, 2003; Ortlipp, 2008). I consider it as a vehicle that provides me with the opportunity to write about some of my past experiences “retroactively and selectively” (Ellis, Adams & Bochner, 2011, para. 5). As Ellis, Adams and Bochner (2011, para. 6) suggest, autobiographical accounts most often involve “epiphanies” - remembered moments perceived to have significantly impacted upon the trajectory of a person’s life. In my case, it is the stories and experiences of encountering incorrect presumptions and discovering outsiders’ perceptions and unawareness about Bangladesh that has defined and shaped much of the intent of this research.



Figure 1: My House in Bangladesh

A confrontation with incomplete presumptions and misrepresentations are often part of the migrant experience. They are linked to the exaggeration of cultural differences and the denial of positive emotions towards immigrants (see Green & Staerklé, 2013). Culturally different migrants are more often misconstrued and misinterpreted than more similar immigrant groups (see Dustmann & Preston, 2007). That difference has probably been the case for me. Coming from a so-called Muslim, traditional and underdeveloped society, I confronted distorted suppositions on the very first day I arrived in Auckland. It started with the deconstruction of my “feminist” and “middle-class” identity. While I identify myself as a middle-class, secular and feminist scholar from Bangladesh, I realised that the outsiders - the people of my host country - had a very different perception of me. The following two anecdotes, recorded in my personal diary, reflect how my “middle-class” and “feminist” identity confronted vulnerability.

This led to an awakening of my consciousness about fragile, distorted and often a partial representation of Bangladesh and Bangladeshis in the context of New Zealand (though given Kissinger's comments, it is likely to be far more widespread).

My phone is not second hand

I was new to Auckland; I'd maybe been here for a few weeks when one day, the manager of the dormitory I used to reside - a White, middle-class male - asked me if I bought my phone from "TradeMe". As I had no clue of what was he referring to, I had to ask him what TradeMe is. I came to know that TradeMe is the largest online auction website in New Zealand from which one can buy second-hand or used electronic devices, such as smartphones, at a cheaper price. When I told him that it was a new phone and I got it from my country, he shrugged in disbelief before labelling me as part of the elite. Does this happen to Pakeha (European) New Zealanders? (From researcher's personal diary, February, 2011)

Women do have agency in Bangladesh

I had always considered my upbringing as normal. As such, I took it for granted. I had a typical Bangladeshi middle-class upbringing in an educated family that always prioritised education and educational credentials irrespective of gender status. Thus, coming to New Zealand for higher studies never seemed an improbable or far-flung prospect for me or my family. But my young European dorm mate had a very different assumption about me. Her obvious assumption was that I was married. On the very first day we met, she asked me when my husband would arrive in Auckland. Upon discovering that I do not have a husband, she asked if I ever been married. I soon realised that my dorm mate deemed that it is unusual for an unmarried, brown woman to travel all the way to New Zealand for higher studies in her late twenties. On shattering her initial presumption, she then assumed that something must have gone wrong in my life - I must had a pity story of being divorced or widowed, sexually abused or differently abled, or some other kind of social stigma that left me in the situation of being unmarried and unaccompanied in my late twenties with a dream of pursuing higher studies abroad or, I had flown to New Zealand to escape some kind of honour killing. Her default position toward me was of condescension and pity. After failing to fit me into the stereotypes and her presumptions, she finally asked me if I came from a very progressive, liberal family. (From researcher's personal diary, February, 2011)

The anecdotes above illuminate two crucial issues. Firstly, they exemplify the Kissinger myopia (Zeitlyn, Janeja & Mapril, 2014). They show that the hostile, narrow narrative with its portrayal of poverty and the poor has created a hindrance for outsiders to discern that there are people in Bangladesh much like them in many ways. They are educated and middle class, just like them; they enjoy affluent, comfortable lives, just like them; and they have access to global goods, commodities, conveniences, and services, just like them.

Secondly, the story of my former dorm mate shows that it can be difficult, if not impossible, to comprehend the agency of Bangladeshi women if reading them through a Northern perspective.

It highlights the fundamental criticism of dominant Northern feminist perspectives, wherein they fail to acknowledge and analyse Southern women's diverse resistance, activism, and agency. This problem comes from promoting and assuming that Northern ideas, perspectives and structures are universal (see Spivak, 1988; Mohanty, 1991; F. D. Chowdhury, 2009; Herr, 2014). As such, they fail to acknowledge the context-specific historical and political structures and cultural diversity of place (Herr, 2014). Concerning this problem, Mohanty (1991) argues that the Northern attempt to study third world women through quantitative, objective indicators such as life expectancy, fertility, sex-ratio, income-generating activities and education does not provide an exhaustive day-to-day account of their lives. It does not help comprehending "The everyday fluid, fundamentally historical dynamic nature of the lives of the third world women" (Mohanty, 1991, p. 6). This problem, however, is not limited to feminist theory or feminism; rather it should be seen as one of the fundamental problems of social science: the theoretical and methodological inadequacy and difficulty of reading the global South through a dominant (Northern) theory. My research confronts this problem. I address this issue later in the chapter.

While my European dorm mate could not imagine Bangladeshi women's agency and self-determination, in reality, there are many accounts of women's active and successful negotiations with patriarchal practices and institutions. For instance, Hussein (2017) argues that urban middle-class women navigating and making their own life choices are not rare. Women can change their gender roles and gain autonomy within family and society by using a range of social and cultural capitals such as higher education, English medium education, professional careers, high-paid jobs, and travel abroad (Hussein, 2017).

1.2 Theorising the Misrepresentation and the Invisibility of the Middle-Class

While my ideas of Bangladesh, its place in the world, and the misrepresentations of it were originally based in common sense, an engagement with the literature and the theory resulted in comprehending the institutional nature of the distortion and the missing narratives of the middle-class. There has been a long theoretical conversation about charting the locations, people and experience from the periphery as inferior. These conversations concern the exclusion, marginalisation and distortion of experiences of the periphery. Said (1978), for instance, called this systemic misrepresentation and distortion "Orientalism". Said (1978) showed in his seminal book of that name that the imperialist mind-set of Western scholars

depicts non-Western [Southern] locations, people and culture in trivial and exotic manners. This is significant as it provides the moral and intellectual justification for their subjugation. “European culture gained in strength and identity by setting itself off against the Orient as a sort of surrogate and even underground self” (Said, 1978, p. 3).

Spivak (1999) also has a similar concern. She used the term “sanctioned ignorance” (Spivak, 1999, p. 146) to condemn the scholars from the metropole for permitting selective ignorance and unawareness about locations and experiences at the peripheries. She argues that theoretical elites and scholarly practitioners from the metropole are often complicit in the reproduction of imperialist and colonial assumptions and structures. Reflecting on Spivak’s work, Kuokkanen (2008) argues that this ignorance is often institutionally encouraged and implemented in the academy. “Sanctioned ignorance also relates to ways in which intellectual practices obscure contemporary concerns...” (Kuokkanen, 2008, p. 62). Spivak’s charge of sanctioned ignorance is most often directed at the Western attempt of studying the Orient and the subaltern (Mayblin, 2013). In this regard, my research can be thought of as a reworking of Spivak’s (1988) notion of the invisibility of the subaltern: “the subaltern cannot speak”. Spivak (1988) argues that the poor, marginalised subaltern from the Indian subcontinent represent an unreachable group because of Western imperialist discourse and semantics. Whereas the middle-class I have researched is globally connected and privileged, yet their narrative is invisible in the literature.

The ignorance and exclusion are also alluded by Raewyn Connell (2007). She calls it the “gestures of exclusion”. Her particular target is dominant (by which she means Northern) social theory. Connell (2007) noted: “...texts of general theory include exotic items from the non-metropolitan world, but they do not introduce *ideas* from the periphery that have to be considered as part of the dialogue of theory” (p. 46). I contend that the poor and poverty of Bangladesh have been the “exotic item” for Northern academia and media alike, while the narratives of the middle-class remain beyond the scope of theoretical elaboration, much less of scholarly dialogue.

The global portrayal of fragility and vulnerability of Bangladesh is essentially linked to the historical narratives of modernity, colonisation, and imperialism. More specifically, the imperialist disposition and the modernist presumptions of the social science and social theory are to blame for a portrayal based on fragility. According to Bhabra (2007, p. 1), modernity is the dominant frame for social and political thought across the world. Bhabra (2007) further

asserts that two paradigmatic assumptions have shaped social theory and authoritative knowledge: 1) an historic euphoria that differentiates a traditional, agrarian past from the modern, industrial present; and 2) a fundamental difference and supremacy that distinguishes Europe (and the US in the contemporary global order) from everyone else in the world. These fundamental assumptions have formulated an approach of developmentalism through which locations in the South are often understood by the Northern scholars as weak copies of the North (Connell, 2007). Northerners make history, civilisation and development, they have agency; Southerners merely imitate.

The approach of developmentalism tends to comprehend locations from the South as lacking in qualities of cityness, meaning the lack of governance, service provisions, productivity and reliable infrastructure (see Robinson, 2002; Roy, 2011). Its attempt of picturing the global South as a place of deficiency and fragility is further evident in ignoring its “middle-classness”. By middle-classness I mean the distinctive lifestyle - the possession of both material and cultural resources that differentiates and distinguishes the middle-class from the poor. Drawing on Bourdieusian (1984) analysis of class, I attempt to locate some of the ingrained sensibilities, dispositions and the resources that the members of the middle-class frequently and spontaneously draw on to reproduce their social positioning and privileges. I revisit the concept of middle-classness in further detail in Chapter 7.

The middle-class and their middle-classness, however, has not garnered attention from local scholars either. The poor and their impoverishment remain the undisputed research interest of the native researchers. As my research progressed, I came to apprehend the scarcity of literature on the middle-class. I figured that the issues such as gender and intergenerational dynamics and relationships are predominantly explored within the contexts of the rural poor. For example, the literature on gender and feminism is largely focused on the poor women’s empowerment and autonomy after their integration into the development initiatives and microfinance programmes (see Kibria, 1995; Kelkar, Nathan, & Jahan, 2004; Kabeer et al., 2011), while scant attention is paid to the issues of construction of the middle-class women as social actors.

Similarly, the research on intergenerational dynamics and relations is disproportionately focused either on the intergenerational transmission of well-being, support and care in rural areas (see Zarina, Szebehely & Tishelman, 2002; Jesmin & Ingman, 2011; Islam & Nath, 2012;

Khan et al., 2014), or the problems of child labour, poverty and economic roles of children in rural or urban poor families (see White, 2002, 2007; Myers, 2001; Ruwanpura & Roncolato, 2006; Islam, 2012). Even the literature on technology and infrastructure (Bayes, 2001; Khandker, & Koolwal, 2010; Mallick, Rahaman, & Vogt, 2011) is focused on poverty alleviation, disaster management and development initiatives in Bangladesh. In particular, those research illuminate how the global and local technologies, such as renewable energy, solar power and agricultural technology, are useful in the reduction of poverty and empowering the poor.

Bangladeshi scholars have been partly responsible for not taking interest in middle-class issues. They can also be criticised for relying on the approach of “developmentalism” and recurrently studying the poor other. Concerning this, Sabur (2010) notes:

The impulse for studying ‘class’ occurred as a very late development in the Bangladeshi social science community. Anthropologists who have tried to grapple with the dynamics of the social reality in post-colonial Bangladesh were either concerned with analysing society on the basis of kinship, or on the basis of mode of production within an agrarian context. Meanwhile, the emergence of the group I am labeling ‘middle class’ and their oligarchic nature remained completely unnoticed by social scientists. (pp. 3-4)

Sabur (2010) further details:

This neglect happened partly because of a deep-seated discomfort amongst academics to critically analyse their own class and partly because they were possessed by the ghost of Eurocentric thinking. Collectively, these have inspired the study of ‘others’—largely made up of the rural and ethnic communities. (p. 4)

My research is an attempt to redress the dearth of knowledge and narratives of the Bangladeshi middle-class, by investigating their engagement in a moral economy, and consumption of everyday domestic technologies. Middle-classness is often expressed through consumption practices. Consumption can be seen as a core mechanism through which the middle-class attempt to claim distinction and reproduce their privileges (Bourdieu, 1984; Wacquant, 2013), and the new urban salaried Bangladeshi middle-class (see Chapter 2) is no exception in this case. As Karim (2012) argues, “With globalization, neo-liberalism and the presence of a powerfully invasive media, growth of a new middle class differs itself from its ‘older’ version on grounds of consumerism (the old middle class took pride in austerity)” (p. 53).

My focus on the domestic life in researching middle-class is intentional. The centrality of the family/household in Bangladeshi society and lives is undeniable. Family in Bangladesh is the core institution for the delivery of welfare and social control; it is the primary site for the performance of gender- and age-based roles and responsibilities, and people’s anxiety, tension and conflicts about social change and the new social order (White, 2012). The analysis of domestic life and household in this research explores the middle-classness on both materials (consumption of technologies) and social/cultural (household dynamics of age, gender and class/patronage) terms (see Chapter 3, 4, 5 and 6).

1.3 Travelling between North and South

The reader at this point may be confused with the way I have been swinging between different terms and phrases, such as metropole-periphery, North-South or developed-developing. This brings me to define the terms I will use for the rest of the thesis to refer to both developmental and epistemic inequality. Before I started this research, I envisioned Bangladesh as a developing country, as opposed to a developed one. That was merely a common-sense use of the term, without any theoretical, political or ideological comprehension or conviction. As my research has progressed, I have become acutely aware of the different terms and ways of describing a development inequality and of dividing the world accordingly; such as West-East (see Said, 1978); First, Second and Third World (see Spivak, 1988; 1999); and North-South/global North-global South (see Connell, 2007).

The West-East divide emerged as an imperialist attempt to consolidate the centrality of European civilisation and culture (Said, 1978). In subsequent decades, the West-East division has been reoriented toward a global North-South alignment, based on the development disparity under globalisation (see Konard, 2016). As a result, this thesis might have been framed around a West-East binary; however, I have opted for a North-South variant because it is more contemporary, and more importantly, develops a framing that is more concerned with empirical studies. For example, the literature on urban infrastructure and technology, and urban geographies (see Watson, 2008; Jazeel & McFarlane, 2010; Roy, 2011; Silver 2014; Simone 2015). My preference for the North-South also comes from the fact that it is the least hierarchical term theoretically, compared with the First/Third World or develop-developing formulations (Mendez, 2015). The concept of South was coined to overcome the old division between West-East, First and Third World, and it refers to those so-called developing countries without trying to evaluate them as less developed (Rehbein, 2015).

In this thesis, I use North-South or global North-global South as a shorthand for a sociological perspective that simultaneously specifies a binary of development and looks to challenge and critique that binary. By this, I mean that development is non-linear and uneven as opposed to the claim of the dominant social theories originated in the North on the premises of a modernisation archetype. The modernisation paradigm rests on the belief that the transition from tradition to modernity is a universal and linear process and the so-called developing countries are or will be moving through the same stages of development as did the industrialised countries in the past (Krüger, 2008). In reality, locations from the South often lead to a differential path of development and urbanisation, which is most often known to produce uneven and fragmented material and cultural conditions (see Roy, 2011; Graham & Thrift, 2007; McFarlane, 2011b).

Acknowledging this fragmented and irregular path of development, I was keen to develop a perspective that is appreciative of a multicentric world - meaning the North and South can be situated anywhere in the globe (Rehbein, 2015). A “multicentric world comprises a multiplicity but still consists of centres and peripheries” (Rehbein, 2014, p. 217). “This is not a postcolonial situation anymore because peripheries have entered the centres (and vice versa)...” (Rehbein, 2014, p. 217). Concerning this, Rehbein (2015) draws our attention to the changing world by asserting that the geographical or socioeconomic entity of global North and South has been becoming inconsequential. Reflecting on the infrastructural and financial crisis of Detroit

during 2013, Rehbein (2015) noted that the US state had a situation of great similarity to that found in the South. On the contrary, he argues that the metropolis such as Shanghai or San Paulo can not be called developing or underdeveloped spaces; they rather feature aspects of the metropolis from the North. Thus, the contemporary world is a patchwork of North and South in terms of places, people, groups, tendencies and transnational phenomena (Rehbein, 2015).

One of the core intents of my research is to explore and highlight this patchwork of North and South in the context of urban Bangladesh, by examining the consumption of everyday domestic technologies of its middle-class. To do so, I operationalise the theory of domestication (Silverstone, Hirsh & Morley, 1992), a framework that investigates the use of everyday technologies in accordance with households' rules, rituals, routines, values and aspirations. These manifestations have been regarded as the *moral economy of the households* by the proponents of the theory. I will discuss the operationalisation of this theory in further detail in Chapter 2, which contains a conventional theory chapter and an assessment of a succession of interrelated literature and concepts.

The theory was originally developed by Silverstone, Hirsh, and Morley (1992) to explore the appropriation of media technologies in British households. Despite its Northern origins, the theory expressed a strong appreciation for social and cultural complexities; specifically, the web of everyday life in which technologies are adopted, integrated and used (see Haddon, 2011; Morley, 2012). Such acknowledgment of the cultural and social aspects of technological consumption makes it suitable for being adopted and applied in other contexts, outside of Britain, the North. Thus, the theory has been adopted and applied in the global South, including studies in China, Korea and Indonesia (see Yoon, 2003; Lim, 2008; Lim & Soon, 2010; McDonald, 2015; Rahayu & Lim, 2016). Similarly, the theoretical aspect of reflecting on the complexes and networks of social, cultural and technological dynamics of everyday domestic life enables this research to discuss and illuminate context-specific, local expressions and practices, such as guardianship (*obhivabikotto*), the parental obligation of raising children (*manush kora*), negotiated and reconstructed middle-class femininity, and the practice of class patronage in domestic servitude.

A discussion about infrastructure is irrefutable when investigating the consumption and use of everyday technologies in Bangladesh. This is because the provisioning of basic household infrastructure such as water and electricity is often irregular in Bangladesh. Infrastructure is

not taken for granted, neither is it invisible in Bangladesh (this is unlike the ‘North’, or at least, the Northern view of the North). The disrupted infrastructure and its configuration routinely feature in the mundane day-to-day conversations of urbanites. Similarly, it made a frequent appearance in my field work, particularly, in the one-to-one conversations and interviews with the participants. My participants recurrently mentioned infrastructural irregularities and how they deal with it when narrating their stories and experiences of using domestic technologies. Both my insider experiences and the fieldwork made me aware that I could not sidestep the discussion on household infrastructure and its configuration in my research.

Infrastructure initially raised a challenge for my research. From the review and appraisal of the theory of domestication and related literature, I apprehend that the theory contained an implicit Northern bias, and remained insensitive to infrastructural irregularities and disruptions in places like Bangladesh. The theory was developed and adapted to the premises and assumptions that infrastructure is ubiquitous, and omnipresent (see Chapter 2). It remains blind to the issues such as how domestic technologies might be differently adopted and appropriated in a context where basic infrastructure is irregular. I attempt to redress this lack of idioms and apparatus of the original theory by incorporating local and context-specific components and ways of doing infrastructure, such as informal and self-help infrastructure and improvised infrastructure. I engage with a strand of literature that is helpful in understanding the differential paths of urbanisation, urban infrastructure, and urban dwelling in the global South (see McFarlane, 2011; Roy, 2011; Silver, 2014; Simone 2015). They assert various forms of improvisation and a range of coping strategies for making an often negotiated, self-configured everyday urban living (McFarlane, 2011b). I find this literature useful to bridge the gap between the suppositions and premises of the domestication framework (Silverstone, Hirsch, & Morley, 1992) of apprehending infrastructure as evenly grown and universally functional and the existing reality of an irregular and fragmented urban infrastructure of Bangladesh.

Though I engaged with some early postcolonial thoughts (Said, 1978; Spivak, 1988, 1999), in the previous section, to foreground a discussion on the global misrepresentation of Bangladesh, I am largely drawn to the literature that is empirical and operational within this tradition. I am interested in the discourses that make an attempt to develop, clarify, or reformulate the dominant theoretical apparatus and methods to be applicable and sensitive to the societies at the periphery. My intention is to avoid and surpass the binary of Eurocentric and third world fundamentalism/essentialism (Grosfoguel, 2011, para. 4-5). Hence, my research engages the

literature and discourses that are sympathetic of formulating a theoretical and empirical framing that is democratic, that helps to achieve better communication and transportation between the North and the South (see Connell, 2007; McFarlane, 2011; Roy, 2011; Morley, 2012; Silver, 2014; Rehbein, 2015; Simone 2015).

My research is a modest contribution to Southern theory (Connell, 2007). The modesty should be acknowledged due to the fact that the primary data for this research came from a limited ethnography of middle-class households in my home city of Rajshahi. Thus, my intention is not to propose or develop an indigenous theory or perspective of studying consumption of everyday technology and domestic life. Rather, my research attempts to make a contribution to Southern perspective through theoretical transportation from the North to South. My intention and purpose are aligned with the contextualist approach proposed by David Morley (2012). Morley (2012, pp. 98-99) counters the claim that Northern theory has nothing to offer in analysing other places and every region needs to develop its own indigenous theory. He rather contends that the theory can efficiently and productively be transported and applied if there is an appropriate recognition of its changing context and attempt to clarify their otherwise implicit premises and assumptions (Morley, 2012, pp. 98-99). Moreover, Connell (2014) noted: "... southern theory is not a fixed set of propositions but a challenge to develop new knowledge projects and new ways of learning with globally expanded resources" (p. 210). It is important to note that the emphasis is given on communication; not the separation: on achieving global, democratic archives of social science by incorporating indigenous/native knowledge, perspectives and methods (see Chakraborty, 2000; Hountondji, 2002; Connell, 2007, 2014). As Connell (2014) asserts, indigenous knowledge should not be seen in isolation as a response or counter to Northern (imperialist) perspectives and models. She noted: "Indigenous knowledge is often asserted as a retort to the imperialism of Western science or culture. This retort has had a political impact, and its consequences have not always been happy" (Connell, 2014, p. 212). Rather, the new knowledge and perspective emerging from the South should be able to travel between North and South to achieve a communication (Connell, 2014). I have attempted to achieve this communication by balancing my focus between universality and context specificity in this research through a cultural (soft)relativist approach. I will describe and revisit this issue in further detail in Chapter 2.

This research also makes an important intervention into the realm of "basket case" and narrow, hostile, one-sided representation of Bangladesh. It is a critique of a myopic portrayal of the

country as a land of homogenising impoverishment, deficiency and catastrophe. The research attempts to destabilise such Northern assumptions by critically discussing and analysing the consumption of everyday domestic technologies of its affluent middle-class. I also regard it as a politics of recognition that seeks to make the invisible middle-class of Bangladesh and their everyday lives visible.

1.4 Thesis Structure

This thesis is comprised of seven chapters.

Chapter 2 provides the theoretical grounding for this research. The chapter operationalises and contextualises key theoretical components of this thesis with an engagement and synthesis of the substantially related literature. It begins with outlining the origin and development of the conceptual components of the theory of domestication (Silverstone, Hirsh & Morley, 1992) such as “the moral economy of the household”, “appropriation”, “objectification”, “incorporation” and “conversion”. I highlight the ways my research diverge and conform to the original theory and its application. The review of a succession of literature on domestication and technology enables me to identify three crucial components of my thesis: agency, mutual determination of technology and society, and human-nonhuman entanglement. My research conceptualises technology and its everyday usages as a complex agglomeration of humans and nonhumans/social and materials. It also attempts to understand this agglomeration as symbiotic and mutual, meaning technology and social factors simultaneously define, redefine or reproduce each other. Conceptualisation of everyday technology as a sociomaterial assemblage helps this research to broaden its focus in understanding the social and cultural aspects of everyday domesticity of Bangladeshi households.

Chapter 2 also focuses on the inadequacy of imperialist, modernist presumptions of dominant technology theories to discern Northern experience of technology and infrastructure as universal and ubiquitous, and express my contention to take a cultural relativist and context-specific approach for this research. In particular, I argue that I take a “cultural (soft) relativist” position, which helps to establish a balance between the global and local elements and dynamics and tendencies in this research. The chapter ends by charting the dynamics of

Bangladeshi middle-class households such as gender, intergeneration and class/patronage as these three dynamics make up the three substantial chapters (Chapter 4, 5, and 6) of this thesis.

Chapter 3 includes a reflections on the methodological choices and procedures for this research. In particular, the chapter discusses the details of fieldwork, participant recruitment, data collection and analysis processes.

Chapter 4 deals with the infrastructural differentials and uniqueness in urban Bangladesh. It highlights that the infrastructural existence and development in Bangladesh is splintered and uneven. Basic household infrastructure and amenities such as power and water supply are often informally self-configured and self-financed by the middle-class urbanites. Informal and self-configured provisioning of water and electricity leads to adoption and domestication of a new range of technologies and devices such as Instant Power Supply Units (IPS), voltage stabilisers, charger/battery back-up fans and lights, and water filters. I argue that informality and informal provisioning of infrastructure could be seen as a marker of middle-classness in Bangladesh as opposed to the claim of dominant urban theories that perceive informality as a symbol of impoverishment and deficiency, and the poor's survival strategy. Such arrangement of informal infrastructure is regarded as "elite informality" by Roy and AlSayyad (2004).

In Chapter 5, 6 and 7, I turn my attention to household dynamics: how everyday technologies are often appropriated and used in negotiations, tensions, conflicts and priorities among the household members. These three chapters respectively examine the intergenerational, gender and class/patronage politics of the everyday use of domestic technologies. It implies how priorities, usages and access to technologies are negotiated between the household members in everyday life; how technologies are often turned into a vehicle to reproduce, redefine, or improve an individual's status and positions within as well as outside of the households. These three chapters discuss how technologies are domesticated in accordance with the intergenerational, gender and class dynamics and factors, and in turn, how the adoption and integration of technology reproduce or redefine the household relationships.

Chapter 5 starts by outlining the parent-children relationships, parental obligations, concerns and challenges in contemporary urban Bangladesh. The chapter is a critique of Northern presumption about the lives of Bangladeshi children (White, 2007, p. 505) as it highlights that middle-class parents are deeply concerned, attentive and affectionate about raising their

children as digital literate while retaining the traditional values and norms and protecting them from online and offline harm. It also reflects on children's role as ICTs trainer in the household and how children use ICTs as a bargaining chip to claim autonomy and get away from parental regulation.

Chapter 6 begins with an account on the gendered division of labour to chart the predominantly masculine, feminine and negotiated domestic roles and activities in the middle-class contexts. It examines the level of mechanisation in the household chores and how the integration of kitchen/home appliances has an impact on reproducing and/or redefining the gender roles and hierarchy. I argue that domestic ICTs are used by both men and women as a tool to claim and reclaim mastery, status and privileges. While men attempt to retain their well-known masculine superiority over the use of ICTs, women make the effort to gain digital competency to become independent users and to confront and challenge men's mastery.

Chapter 7 examines the politics of class and patronage over the use of domestic technologies. The chapter starts with a substantial discussion about the practice and nature of domestic servitude and the relationships between middle-class matriarchs and poor maids. I identify how the matriarchs of the household often use a set of ground rules and disciplining projects to keep their maids in line. Matriarchs attempt to hire domestic maids to substitute their own domestic labour and gaining leisure time is a marker of middle-classness. I note that the matriarchs use domestic technologies, particularly kitchen appliances, to create, reproduce, and perpetuate class distinctions and hierarchy. Whereas, the maids attempt to gain access to those technologies and privileges to improve their position in the bargain.

Chapter 8 contains my conclusion. In it, I draw attention to key findings of this research. I note how technology is converted into a tool to reproduce the social position and privileges of the members of the households, and how middle-classness is often articulated through the appropriation of everyday technologies.

Chapter 2

Domesticating Everyday Technologies in Middle-Class Households

2.1 Chapter Overview

In the previous chapter, I mentioned that my research is an ethnography of consumption and use of everyday domestic technologies by the Bangladeshi middle-class households. It operationalises a theory of domestication by contextualising it. This chapter discusses the theoretical framework and interrelated literature that will inform the four empirical chapters (Chapter 3, 4, 5, and 6) of the thesis. The first section of the chapter discusses both the key concepts and empirical components of the theory of domestication (Silverstone, Hirsh & Morley, 1992). The section stresses that though the theory originated from an anthropological root, it has been adapted and developed as an analytical, sociological framework to look at how people's economic behaviours and choices in modern capitalism, such as the consumption of everyday technologies, are influenced by the rules, rituals, norms, and values of the households. The section also highlights the ways my approach diverges from and conforms to the original British domestication studies (Silverstone, Hirsh & Morley, 1992). The second section locates a relatively new literature of domestication studies and identifies three crucial components: agency, mutual determination, and a complex entanglement of humans and nonhumans/social and material, and their significance for my research. The following section proposes a cultural (soft)relativist approach of studying technology and infrastructure by highlighting the inadequacies of the dominant theorisation of the same. A relativist, contextualist approach facilitates this research in critiquing and correcting the Northern supposition of linear, and uniform development of infrastructure, as established in Chapter 1, largely by challenging the notion of deficiency/lack and highlighting the material and cultural unevenness. The focus on context-specific and local elements are extended in the remainder of the chapter as it discusses the dynamics of middle-class Bangladeshi households and how these dynamics act as organising principles for the empirical discussion of this thesis.

2.2 From Moral Economy to Everyday Technology

In this section, I will reflect on several interrelated literatures, with the intention of identifying key concepts and charting their development. I start with the ethical and then anthropological concept of “moral economy” and pay considerable attention to its reworking as an ethnographic endeavor focused on the contemporary household (in the first instance, those of the global North) used by Silverstone, Hirsch & Morley (1992). They described their repurposing of an anthropological approach as a moral economy of the household. Their seminal theorisation of domestication and the four moments of “appropriation”, “objectification”, “incorporation” and “conversion” constitutes a central component of my research. I attempt to move beyond their approach by reversing (or re-reversing) the directionality of study. Silverstone, Hirsch & Morley (1992) subverted the traditional anthropological approach - anthropologists studied precapitalist kinship groups, communities and culture; the study of domestication applied anthropological concerns to contemporary Britain. I am taking a version of their approach to Bangladesh. A moral economy is a study of objects. Objects are commodities in the market when they are brought and appropriated in the households they cease to be commodities (or economic things) and become a socio-cultural/moral thing. I seek to dispense with this binary-moral economy/market economy, and object/commodity. My preference is to use the notion of technologies, rather than the either/or of objects and commodities; technologies are both. While this conceptual shift allows me to engage with a slightly more contemporary literature than Silverstone, Hirsch & Morley (1992), the focus on domestication as an everyday process that operates within and outside middle-class dwellings in Bangladesh remains the centerpiece of my research endeavours and theorising.

2.2.1 Moral Economy of the Households

Moral economy is a contested term that has a wide variety of connotations and applications across disciplines. The review of the literature on moral economy highlights that the term is typically used in the ethical or normative sense to refer to an economy based on justice, fairness, and what is right and expected (Booth, 1994; Götz, 2015). More generally still, the ethical/normative expression of moral economy is influenced by the Aristotelian notion of the good life (see Booth, 1994, p. 655), where it explicitly differentiates between moral and immoral behaviours and actions.

Thus, in his groundbreaking essay “The Moral Economy of the English Crowd in the Eighteenth Century”, E.P. Thompson (1971) used the term to describe how the infringement or violation of desirable and reasonable economic behaviours in a given context contributed to the peasant riots. Drawing inspiration from Thompson’s work, the political scientist, James Scott (1976), applied the concept in a similar fashion to explain how the breakdown of consensus in the traditional system of the patron-client relationships between the peasants led to rebellion. This long-standing approach conceives moral economy as an established consensus around a desirable and expected set of economic behaviours and activities in a given context. A moral economy reflects what is right in an economic context, and infringement of these expected behaviours can cause anarchy and uprisings in society. At the same time, Thompson’s (1971) conceptualisation and application of moral economy was constructed within a specific historical socioeconomic context and conceived as an opposing force to the market economy (Booth, 1994; Götz, 2015). For Götz (2015), Thompson’s “... understanding of moral economy is conditioned by a dichotomous view of history and by the acceptance of a model according to which modern economy is not subject to moral concerns” (p.147). Such conceptualisation delineates the moral economy as antonymous to the modern market economy within capitalism.

This split between market and moral economies is significant in terms of the divisions and disciplinary specialisations of the Northern academy. Moral economy, especially the study of objects (as opposed to commodities), is/was primarily the domain of anthropologists. The moral economy was typically perceived in separation from the formal market economy. Even recently, David Cheal (1988), for example, in his analysis of the gift economy, conceptualised the moral economy as a small unit of the subjective, informal world of everyday life. For example, family relations in contrast to the formal objective economic transaction of goods and services. A recent study by Näre (2011) used the moral economy framework in a similar manner to analyse the care work of migrant domestic workers in Naples, Southern Italy. Näre (2011) argues, “... paid domestic and care work relationships are based on a moral economy, i.e. on notions of good/bad, just/unjust rather than merely economic profit maximization” (p.396). Such conceptualisation often suggests the idea of profit-making and other formal economic exchanges are counterproductive to the idea of morality/moral economy; it also suggests that economic behaviours, activities and transactions of the market economy are “immoral” (see Silverstone, 1994; Götz, 2015). Hence, a focus on the moral economy could

be accused of romanticising the idea of an economy or economic relationship by imposing and overemphasising the positive values such as goodness, justice and fairness (see Booth, 1994).

This is not to say that a more analytical and value-free use of the term moral economy was underdeveloped. Here, the concept of moral economy is freed from the framing and connotation of its precapitalist, subsistent economic traits. A contemporary moral economy has been used in many different cross-disciplinary studies to investigate a wide range of economic behaviours and activities in a capitalist economy (Götz, 2015). Götz (2015), argues, “Instead it is viewed as a concept capable of representing the workings of modern civil society” (p.148). Such conceptualisation of the term implies that capitalism does not dissolve the moral economy (even in ethical/normative terms), rather it creates new demands, openings and imperatives. Such applications of the concept reflect its theoretical potential to analyse economic choices of producers and consumers of the modern capitalist economy, both at the micro and the macro levels (Götz, 2015). Bolton, Houlihan and Laaser (2012), for example, used the lens of moral economy to look at human resource management and professional employment as a relationship “rooted in a web of social dependencies, and considers that ‘thick’ relations produce valuable ethical surpluses that represent mutuality and human flourishing” (p.121).

Silverstone, Hirsch and Morley (1992) epitomised and advanced a use of moral economy freed of its precapitalist traits and traditional anthropological concerns for the exotic other. This, in part, required a reformulation of the unit of analysis, abandoning the kinship group, self-governing communities and precapitalist “cultures”, and instead embraced the leitmotif of contemporary capitalism, the autonomous household. The conceptualisation of the household as a moral economy, or as a unit of moral economy, by proponents of the theory of domestication can also be understood as an analytical tool to study economic behaviour. Moving beyond the normative use of the term, or conceiving it as a characteristic of the premarket economy, the domestication thesis uses moral economy as an analytical framework to study the interplay between culture and economic behaviours. This includes household rules, rituals, routines, and values that influence the consumption behaviours of its members. The theory of domestication offers an analysis and interpretation of how commodities, including technologies, are appropriated and consumed within the moral economy of the household (Hebrok, 2010; Hartmann, 2013).

As Silverstone and Hirsch (1992) noted, the notion of *the moral economy of the household* is drawn on in anthropology literature (Appadurai, 1986; Cheal, 1988; Parry & Bloch, 1989), which conceives the household “as part of a transactional system of economic and social relations within the formal or more objective economy and society of the public sphere” (p. 16). Due largely to its anthropological origins, domestication studies pay intense attention to household activities - who does what in the household - the domestic division of labour (see Lim, 2008; Lim & Soon, 2010; Kadi, 2013; Lim, 2016). This is a crucial component of any ethnography that wishes to capture the everyday. My research is also invested in understanding the domestic division of labour - who does the shopping, who does the cooking, how the parenting responsibilities are shared and divided.

Kadi (2013), for instance, explained how it is often important to pay attention to domestic practices, routines, and rituals to fully understand the consumption of technologies. In analysing the aspects of gender-technology relations, she gives an example of how one of her women respondents pointed out that men and women watch TV differently; while men concentrate on TV, women simultaneously tend to watch TV and do domestic work such as food preparation. Thus, Kadi (2013) argues, “This perspective on different practices of the consumption of media technology, significantly links media consumption to an activity (food preparation), which is very often part of a gendered division of housework” (p.95).

Despite its anthropological origins, focus and influence, the notion of moral economy is squarely located as amenable to sociological analysis via the domestication thesis. Silverstone (2005) in this noted:

Without apology, the moral economy is a simple sociological notion, bringing into a single frame the convergence and contradictions of values and practices, and drawing comparatively not so much (though this may have been unclear originally) on a distinction between the moral and the immoral, but on the ontological differences between constitutive forms of socio-economic order and behaviour. (p. 238)

In Silverstone's (1994) words:

The moral economy refers to the capacity of households to actively engage with the products and meanings of the public, formal, commodity- and individual-based economy and to produce something of their own as a result of that engagement.
(pp. 45-46)

For Silverstone, Hirsch, and Morley (1992), the household is “both an economy of meanings and a meaningful economy...” (p.18). The household is a meaningful economic unit in its own right: day-to-day domestic economic activities including execution of income, budget, planning, saving, purchasing and expenditure take place within it. Through its members' economic activities, the household is linked with the external formal economy of production, exchange and consumption (Lim, 2016). At the same time, the household is an economy of meanings or moral economy because, “the economic activities of its members within the household and in the wider world of work, leisure and shopping are defined and informed by a set of cognitions, evaluations and aesthetics, which are themselves defined and informed by the histories, biographies, and politics of the household and its members” (Silverstone Hirsch & Morley, 1992, p.18). This implies that the economic activities of the members, both inside and outside the household, are shaped by the morals of the family (Lim, 2016). In particular, a household's norms, rituals, routines and values influence the consumption practices of consumer durables.

The theory of domestication was developed initially with an intention to study the adoption and consumption processes of the new media technologies in British households during the early 1990s (Silverstone, Hirsch, & Morley, 1992; Mascheroni, 2014). The first empirical projects looked into the different dynamics and compositions of households and technologies, such as teleworkers and single parents, the young and the elderly (Silverstone, Hirsch, & Morley, 1992; Haddon & Silverstone, 1993, 1995, 1996). The theory was then taken and applied outside the household or domestic space (Haddon, 2006; Hartmann, 2013). For example, a Norwegian research team employed the domestication thesis to investigate the adoption and use of cars in Norwegian society (Sørensen, 2005). Further, the appropriation of portable technologies such as cellphones (Haddon, 2003, 2004; Mascheroni, 2014; Vickery,

2014) was examined using a version of the domestication thesis. Since the theory has been freed from the household, it was employed to look at and analyse a range of different social groups and their use of technologies, such as computer hackers (Håpnes, 1996), and trainees at an Internet training course (Hynes & Rommes, 2005).

Two things perhaps contributed to the shift of the domestication studies from the household to wider social networks: (1) the portable nature of digital technologies, and (2) the theory's conceptualisation of technology as an object that operates on the boundary of the private and the public sphere. The theory of domestication conceptualises the technologies as the link between the productive and reproductive, the public and the private (Kadi, 2013). It conceives that technology moves between the territory of the private, domestic and the wider public world of formal socioeconomic transactions (Silverstone, Hirsch & Morley, 1992; Silverstone, 1994).

In my research, households remain the start point. A focus on technologies, over and above appropriated objects is the main way in which I articulate the household with the broader economy. I also seek to explore the fluidity of households as units of analysis. For Silverstone (1994, p. 43-44), households and families are fluid categories and are conceptually and empirically variable; while families are based on kinship, households are often based on affinity. With an awareness of the different connotations and meanings of the term "household" and "family" in different contexts, I used them interchangeably since the participatory households (except one household with elderly parents) of my research are largely two generational and of homogenous compositions of a married couple with their young, unmarried children, sometimes with live-in/live-out maids.

2.2.2 Four Phases of Domestication

The early proponents of domestication theory, Silverstone, Hirsch, and Morley (1992), suggested that the process of domesticating new objects/technology into the home involved four main phases: appropriation, objectification, incorporation, and conversion. These four phases of domestication provide a rich interpretation of how, where, why and when people use technologies in everyday life (Bakardjieva, 2011; Hartmann, 2013; Bertel, 2013; Vickery, 2014). The phases emerge and develop within the moral economy of the households (Lim, 2016). They provide a framework for data collection and analysis for my research (see chapter

7). Thus, I am going to discuss briefly these four crucial phases of domestication of technologies.

The phase of appropriation of a technology or object starts the moment it leaves the world of commodity and exchange and enters into the life of the household or individual (Silverstone, 2005; Haddon, 2006, Berker, Hartmann, Punie, & Ward, 2005; Juntunen, 2014). The process of appropriation starts with crossing the threshold of the formal economy to enter into the moral one, and this process continues for the whole consumption process (Silverstone, Hirsch & Morley, 1992, p. 21-22). Through appropriation, artifacts achieve authenticity and significance; commodities become meaningful objects (Silverstone, Hirsch, & Morley 1992, p. 21). Technologies or machines do not come home alone; they come with the wrapping of user's dreams, desires, fantasies, hopes, aspirations and anxieties (Silverstone, 2005).

While appropriation reflects possession and ownership, the objectification processes involve the display and physical disposition of technology within the space of the household (Silverstone, Hirsch & Morley, 1992; Silverstone, 2005; Haddon, 2006, Juntunen, 2014). Objectification is expressed in the use of space, in the placement of technology into the spatiality and geography of the households. The dynamics of objectification also reflect the patterns of spatial differentiation within the home: different spaces or portions of the household might be shared, private, negotiated, gendered or restricted to children or adults. Thus, the technological artefact (for example a television) might be placed in a space inside the household, which is gendered, shared, private, negotiated or restricted to certain members (Silverstone, Hirsch & Morley, 1992). Objectification of technology, thus, also illuminates who has access to what (Kadi, 2013). The physical disposition of the technology in the household requires construction, reconstruction and adjustment of space. Rearrangement of sockets, desks, or a couch might be required, for example, to accommodate a television, desktop or refrigerator in a certain space in the house (Silverstone, Hirsch & Morley, 1992; Kadi, 2013). The process of objectification also signifies an aesthetic evaluation by the households.

Silverstone, Hirsch, and Morley (1992) noted:

All technologies have the potential to be appropriated into an aesthetic environment... And many are purchased as much for their appearance and their

compatibility with the dominant aesthetic rationality of the home as for their functional significance...Whereas a concern with objectification principally identifies the spatial aspects of the moral economy, incorporation focuses on the temporalities. (pp. 23- 24)

The process of incorporation relates to the way technology is used and integrated into a daily routine and, in turn, how it structures or restructures the temporality of everyday life (Kadi, 2013). It reflects the functional significance of the technology. Technology is designed, produced and purchased with an intention in mind, but through incorporation, it becomes functional in a way that is at least partially removed from the original intention of the producer. The incorporation of technology into the moral economy of the household shows and articulates gender and age differentiation and generational dynamics of households (Silverstone, Hirsch & Morley, 1992, p. 24). That is, it redefines the household relationships including the micropolitics of gender, and generational and sibling rivalries (Silverstone, 2005, pp. 234-235). Hence, the integration of a new technology into household culture requires its members to adjust and negotiate the spatiotemporal regulations of the household; who uses technology when and how frequently and for what purposes (Kadi, 2013; Vickery, 2014).

Finally, the conversion phase involves the symbolic significance and meaning of technology, both in and outside the household. It is self-representation of the users through the use of technologies. The users often domesticate technologies to reproduce and maintain their positions (Kadi, 2013). "Consumption is never a private matter, neither phenomenologically nor materially. It involves display, the development of skills, competencies, and literacies. It involves discourse and discussion, the sharing of the pride of ownership, as well as its frustration" (Silverstone, 2005, p.234). Conversion defines the household's relationship with the outer world. It reflects how technology defines and signifies the identity and status of the household and its members in different social networks, including peer groups, colleagues and neighbourhoods (Silverstone, Hirsch & Morley, 1992). Though technology enters into the household or user's life with preformed meaning due to the influence of advertisements, design and media discourse, it is often given other meanings and significance by both the household and the individual (Haddon, 2006; Juntunen, 2014). Conversion "involves resistance refusal and transformation at the point where cultural expectations and social resources meet the

challenges of technology, system and content” (Silverstone, 2005, p. 234). It implies that the use and appropriation of technologies can be resisted or transformed by the users in conflicting sociocultural conditions.

2.3 Domestication of Everyday Technology: A Complex Enactment of Human and Nonhuman

This section is devoted to locating recent theoretical and empirical development of the domestication literature. I identify three crucial components: agency, mutual/co-determination and or a complex enactment between human and nonhuman, which underpin the focus of this research. I start by discussing how the theory of domestication was an intervention in the overwhelmingly deterministic field of technology and media studies due to its emphasis on user’s agency. The section then focuses on its relatively new adaptation of a co-deterministic or mutual shaping approach. I then discuss how this research conceives the process of domestication as an assemblage of heterogeneous entities such as technology, space, users/actors and practices. The section ends by suggesting a synthesis of different scholarships and theoretical concepts with the theory of domestication to widen the scope of my research.

Theorisation of technology is broadly classified into three different strands: 1) by privileging technology, 2) by privileging society, and 3) by perceiving the mutual entanglement of technology and society (Matthewman, 2011, p. 20). While the field of technology and media studies was intensely deterministic and used to privilege the agency of technology to transform and shape human actions and society (Sørensen, 2005; Bertel, 2013, Kadi, 2013; Juntunen, 2014), in the early 1990s, the theory of domestication made an intervention into such theorisation by illuminating consumer/user agency. The theory was instead influenced by the newer approach of the social construction of technology (Bijker, Hughes & Pinch, 1987) and the groundbreaking collection called *The social shaping of technology* (MacKenzie & Wajcman, 1985), which emphasised human intentions and agency - the ways people choose to use technology - and the social factors responsible for shaping technologies. The theory of domestication emphasises user’s agency and role in bringing an unfamiliar technology into the home and making it familiar, tamed and disciplined by incorporating it into everyday practices and routines (Sørensen, 2005; Bertel, 2013). Domestication is a practice that involves human

agency and effort (Silverstone, 2005, p. 231). It focuses on user's efforts and attempts to create and impose meaning to technology to shape it (Kadi, 2013, p. 5).

Initially influenced and informed by social constructionism, domestication theory was later adapted to a mutual shaping approach, which suggests a reciprocal interaction and determination between technology and its users and social aspects. The scholars posited a symbiotic relationship between the technical and the social aspects of everyday technologies (see Lie & Sørensen, 1996; Lehtonen, 2003; Berker, 2011; McDonald, 2015). Domestication is not merely a process of socialisation or taming of technology; it has wider implications. It is a coproduction of the social and the technical (Sørensen, 2005). As McDonald (2015) asserted, rather than technology being fitted into the household, individuals are often seen to be preoccupied with the idea of how to coordinate and adjust domestic practices and social relationships between the members over the use and homogenisation of technologies. Hence, domestication does not suggest unidirectional influence or shaping; it rather involves a state of becoming affected mutually (Lehtonen, 2003, McDonald, 2015), a reciprocal interaction and influence between technology and its users (Lehtonen, 2003).

A co-determination approach facilitates a combined understanding of technological as well as social changes (Boczkowski, 2004). Silverstone (2005, p. 235) notes that domestication is a dialogue between social and technical processes and changes. For instance, television was typically known as a source of family entertainment and a leisure activity (see Morley, 1992). However, the technology is often appropriated and used for several different purposes including a *babysitting or supervising arrangement* in nuclear households (Livingstone, 2007a; Beyens & Eggermont, 2014). Such an appropriation and redefinition of the television might be emblematic of the contemporary crisis of the modern nuclear family: the inability of working parents to spend quality time with their children. At the same time, the parents' increasing sense of outside risks and threats for children might trigger the use of television as an individualised leisure component to confine children safely within the home (see Livingstone, 2007 b). The use of television as a babysitter or as a source of individualised leisure activity highlights the changing values, practices and anxieties of modern nuclear dwellings. The employment of a reciprocal approach in the study of domestication, thus, illuminates the social changes - the emerging, diminishing and negotiated rules, norms, and values. At the same time, it reflects the adoption and redefinition of the technology within the transformed milieu, in particular, the transformed moral economy of the households.

My research, conceives domestication as a co-deterministic and reciprocal process of how technology and its user/social aspects get adjusted and adapted to each other. To be precise, a co-determinist lens of analysis aids this research to apprehend how everyday technologies are implicated into the middle-class residences in accordance with its rules, rituals, routines, aspirations and relationships, and how, in turn, the adoption and use of technologies reform, reinforce (see Kadi, 2013) and restructure (see McDonald, 2015) these domestic practices and relationships. I will provide further details of how this co-determination approach will be applied in my research later in this chapter.

The adaptation of a co-determining approach is a recognition of the complex and tangled relationships between technology and society. Such a conceptualisation stresses the interactions and associations of human and nonhuman actants. As Shove et al. (2015, p. 278) argue, the issues such as socially constitutive roles of artefacts, devices, things, objects and human-non-human hybrids are repeatedly emphasised and analysed in the scholarships of science and technology studies, the field of material culture, consumption and cultural studies. Following this revived interest and enthusiasm, Amin (2014) describes that the terms “cultural” and “material” is a hyphenated word in the recent writing of social science, which implies the mutually implicated and tangled relationships between human and nonhuman actants.

The human-nonhuman or sociomaterial assemblage is one of the most fashionable ideas in contemporary social science. As McFarlane (2011a) argues, the assemblage is becoming popularised as a descriptor of sociomaterial construction and transformation - the composition and relationalities of social and material (McFarlane, 2011a). Assemblage is often used as an idea, an analytic framework, a descriptive lens or an orientation (McFarlane, 2011). It is often employed to signify “indeterminacy, emergence, becoming, processuality, turbulence and the sociomateriality of phenomena” (McFarlane, 2011a, p. 206). In a Deleuzian conception, the assemblage is “a multiplicity constituted by heterogeneous terms and which establishes liaisons, relations between them” (Deleuze & Parnet, 2007, p. 52). For Deleuze, the elements and parts of an assemblage are cofunctioning; it is a symbiosis of heterogeneous entities. The mutually constitutive interactions and symbiosis between human and nonhuman components form the assemblage (McFarlane, 2011a, p. 208).

This approach of conceptualising the use of everyday technology as a complex and symbiotic human-nonhuman enactment and assemblage has been adopted by the domestication studies.

Sørensen (2005), for instance, argues, “Domestication implies not only the movement of objects in a network, but also a series of joint enactments between human and nonhuman elements of the network and in the intersections of network” (p. 48). Sørensen (2005, p. 40) suggests that his focus is centred on the “human performance/enactment” of technology - the individuals create an assemblage of artefacts, meanings, and actions in everyday life. Thus, “... domestication may be seen as the process through which an artefact becomes associated with practices, meanings, people and other artefacts in the construction of intersecting large and small networks” (Sørensen, 2005, p. 47).

My approach is highly influenced by Sørensen’s (2005, p. 48) work as I conceived domestication as a joint enactment of human and nonhuman/social and material. In my research, human-nonhuman or socio-material assemblage is a descriptive lens or an orientation (McFarlane, 2011), which allowed me to focus on multiple entities beyond technologies. In particular, when I think of everyday technologies and their domestication, I think of an assemblage of ensemble entities including technology, infrastructure, actors/users, space, time and practices (rules, rituals, and routines). These entities often share a co-constituent relationship rather than a hierarchical one (see Latour, 1992; Sørensen, 2005; Müller, 2015). Such a conceptualisation facilitates a focus on multiple factors and events for this research including, technology, everyday practices, the use of domestic space and time, a gender division of labour, and parenting aspirations.

The approach of co-determination and human-nonhuman entanglement helps the domestication framework to pay attention to the “uneven politics” (Silverstone, 1994, p. 161) and power structure of households. More specifically, it inspects how the micropolitics of the household it impacts adoption and appropriation of technology, and in turn, how technology influences and redefines the domestic politics and power structure. By micropolitics I mean the use of formal and informal power and strategies by the members of the household to achieve, protect, reinforce and reclaim their goals and positions within everyday domesticity. Domestication framework, in particular, has a long tradition of exploring the micropolitics of gender and generation in relation to consumption of technologies. It has a strong appreciation of gender and age/generational dynamics (see Cockburn, 1992; Haddon & Silverstone, 1996; Habib & Cornford, 2002; Yoon, 2003 Livingstone, 2007a, 2007b, Livingstone & Bober, 2006; Correa, 2014; Vickery, 2014). Studies (Tapscott, 1998; Livingstone, 1999, 2002; Haddon, 2000; Livingstone, 2007a, 2007b; Kadi, 2013) suggest that there is a generational influence in

adoption, consumption and use of domestic technologies, particularly ICTs. The use, interest, awareness and perception of ICTs are influenced by the age of the users (Hynes, 2005). Similarly, domestication studies that investigate gender-technology relationships tend to explore if traditional gender roles have an impact on adoption and domestication of technologies (see Habib & Cornford, 2002; Bakardjieva, 2005; Hynes, 2005; Kadi, 2013). The findings of these studies vary and differ from each other and suggest a complicated dynamic between gender and technology. Bakardjieva (2005) shows renegotiation of gender roles over the use of the Internet as women become leading users of the Internet as part of their parenting role. Kadi (2013) differs, noting that despite women's increased use of the Internet and computers, the traditional gender-technology relations, which typically assert that men are more competent, skilled, and engaged users of ICTs than the women, have not been altered or redefined. Habib and Cornford (2002, p. 163), on the contrary, suggested that "no simple general pattern linking gender and computer use" was found among their participants.

Following the emphasis of previous domestication research, my thesis pays attention to the gender and intergenerational dynamics, and their implications for the domestication of technologies in the middle-class residences. This research makes an attempt to use the domestication framework in conjunction with other theoretical concepts and literature. Such synthesis of literature is not an uncommon one (see Haddon, 2012; Birkland, 2013; Kadi, 2013). Haddon (2006) notes that the domestication framework has been used in combination with different strands of literature to contextualise the research, and provides additional insights on the researched topics and contexts (see Haddon, 2006, 2012; Kadi, 2013). Similarly, this research engages with several different scholarships and theoretical concepts with two major purposes: firstly, to bring greater insights on the topics, and secondly, to contextualise the study in Bangladesh by highlighting local elements and dynamics. In this section, in particular, I will focus on how I use and incorporate the literature of feminist studies of technology and social construction of childhood in this thesis to broaden the scope of the study. The following section of the chapter discusses how the contextualisation of the study involves an engagement with a set of local concepts and ideas.

Kadi (2013) provides a useful insight by pointing out the limitation of a traditional domestication study and why the framework requires a synthesis with other social theories, such as feminist theories. Kadi (2013) argues that in domestication studies, gender is seen as a stable attribute of individual users and thus neglects the mutual shaping of gender and

technology. According to Kadi (2013), "... research in the domestication tradition, tends to oversimplify categories such as gender, and as a result, underestimate their significance because it lacks the tools to theorise age, gender, and technology as intersecting processes" (p. 117). Gender, in fact, is a malleable category, identity and practice, and it is interactive with other phenomena such as technology, which conventional domestication research might not be able to comprehend. To surpass this constraint, the theory of domestication should be combined with a feminist theory that understands and illuminates gender as a flexible and complex social practice, structure and symbolism (Faulkner, 2001; Halford et al., 2010; Kadi, 2013).

The engagement with feminist literature, thus, broadens the scope of the research by focusing on several key issues, including the ways in which technology is gendered, or gender is ascribed to technology; the implications of gender on technical knowledge and practices; and the significance of technology in men's and women's everyday life (see Faulkner, 2001). Integration of the feminist literature also allows this study to conceive gender and technology as coproduced (Faulkner, 2000, 2001; Kadi, 2013), which in turn, contributes and conforms to the co-determination debates of the domestication process. The synthesis would help domestication studies to comprehend the implication of technology in the reinforcement of social inequality, in particular, the gender inequality (Kadi, 2013).

Thus, in this research, I engage with the feminist literature of technology (Wajcman, 1992; Livingstone, 1992; Wajcman, 2004; Sandelowski; 2000; Faulkner, 2001; Saarikangas, 2006; Meah & Jackson, 2006; Nowakowski, 2013) to discuss the implications of gender on use of technology, and if, in turn, technology reproduces and reinforces traditional gender roles in middle-class Bangladeshi households. The key questions and issues addressed by the feminist literature include: 1) how the definition of what is technological in everyday discourse is linked with masculinities and subsequently excludes and disregards women's knowledge and expertise as "technological"; 2) the gendered and power relations between men and women over the use of technologies - who has access and control to them and how they are used; and 3) how the meaning and use of technology impacts the gendered roles and relations (Wajcman, 1992; Livingstone, 1992; Faulkner, 2001; Kadi, 2013). Centering my discussion on these key questions and issues, I discuss in Chapter 6 how certain technology and related skills and expertise are seen as feminine and masculine in the middle-class contexts of Bangladesh. The chapter also investigates whether the domestic technologies, such as ICTs or kitchen appliances, have impacted the gender roles in the households.

Similarly, the research engages with the literature of sociology of childhood and social constructionist perspectives of childhood (Burman, 1996; Boyden 1997, 2003; James & James, 2001) to explore the mutual determination of parent-children dynamics and domestic technologies, particularly ICTs in the households. The engagement helps to reflect and contextualise the issues of parenting, parent-children relationships, and children's agency in the context of Bangladesh. Social constructionism refutes the idea of the universalism. It suggests that the idea of childhood, parenthood and parent-children dynamics changes from one society to other (Burman, 1996; Boyden 1997, 2003; James & James, 2001). Thus, the synthesis offers a context-specific understanding of parent-children relationships. Drawing on social constructionism and local ideas of childhood, this research aims to analyse and explore the intergenerational politics of domestic technologies in the households. Later in this chapter, I will provide further detail of how I am going to use the local ideas of intergenerational and gender dynamics in my thesis.

As I mentioned earlier, domestication studies pay vigorous attention to the implications of gender and age/generation for access to and usage of technologies. They emphasise social inequalities such as gender, age and social class, and their implications on technologies (Sørensen, 2005). Kadi (2013), for instance, argues that the key variables of social inequalities such as gender and age shape the access to and use of technologies. My research also reflects on the interrelationship between social inequalities and access to and use of technologies. In particular, focusing on the mutual determination of social inequalities (e.g. gender, generation, and class) and technology, my research illuminates the domestic power relations and hierarchy in middle-class Bangladeshi households. In other words, through a mutual shaping lens, this thesis examines the following relations in the households: intergenerational-technology (see Chapter 5), gender-technology (see Chapter 6), and patronage/class-technology (see Chapter 7).

2.4 A Cultural Relativist Approach of Theorising Technology

In applying European-born domestication theory to Bangladesh, this research is informed by a cultural relativist position. Cultural relativism refers to the cultural and historical variability of moral rules and social institutions. It is a doctrine opposed to universalism (Donnelly, 1984, p. 400). While universalism suggests that moral rules and social institutions are universally valid

and culture is irrelevant in the determination of its validity, cultural relativism advocates for a notion of communal or local autonomy and self-determination (Donnelly, 1984, p. 400).

As stated in Chapter 1, I take a soft/weak relativist position in this research to critique and challenge the Northern presumptions and perceptions about Bangladesh. It does so by critically analysing and understanding the local and culturally specific social institutions and practices. A soft/weak relativist position perceives that culture might be an important factor and source of the validity of a moral rule, but at the same time, it involves a weak presumption of universality (Donnelly, 1984, p. 401). In other words, as opposed to a strong/radical cultural relativism, which believes culture is the principal source of validity for moral rights and rules and practices (Donnelly, 1984, p. 401), a soft cultural relativism shows an awareness of the modern, crosscutting, transnational globalised order. It is difficult to deny the existence of global, universal entities and patterns even in the remotest village from the global South in modern times (see Piot, 1999). Technology, for instance, is a global object and commodity that gets adopted and integrated into different social and cultural milieu in several different ways with different intentions.

Further, in describing the scopes and differences between strong and weak relativism Baghramian and Carter (2017) noted:

Strong relativism is the claim that one and the same belief or judgment may be true in one context (e.g., culture or framework or assessment) and false in another. *Weak relativism* is the claim that there may be beliefs or judgments that are true in one framework but not true in a second simply because they are not available or expressible in the second. (para. 21)

Reflecting on Baghramian and Carter's (2017) argument, I contend that there are local and context-specific structures and practices (i.e. *Obhivabokotto*/ guardianship, negotiated middle-class femininity, class-based patronage, and self-configured, improvised infrastructure) that are often "unavailable and inexpressible" in dominant Northern perspective and discourse. This section, in particular, engages in the discussion of uneven and disrupted urban infrastructure in Bangladesh, and how this unevenness of the global South is often ignored and obscured by

dominant technology theories, the theory of domestication included. A focus on (disrupted) infrastructure is needed because infrastructure, such as power and water supply, creates the grounds on which other technologies operate (Larkin, 2013, p. 329). For example, a computer is only meaningful and functional when there is an uninterrupted power supply.

The dominant social theories often tend to be complicit in comprehending the global South in an uncritical and unproblematic manner (Spivak, 1999, p. 255). Previously I discussed in Chapter 1, the theorisation of technology and infrastructures are not excluded from this condemnation. Technology theories are often formulated on the premises and the experiences of technocultural conditions of the white, middle-class, Euro-American context (Larkin, 2008; Morley, 2012). The theorisation of technology often discerns Northern reality as universal. Concerning this, Morley (2012) argues, “the outstanding problems that still confront our field, in respect to its deeply ingrained presumptions concerning the universal relevance of what are, in fact, specifically Northern (and thus contingent) relations between television, technology, and national cultures” (p. 79). Thus, these theories are often ignorant of the unreliable, fragile nature of technological infrastructure in the global South (Morley, 2012).

To de-westernise [de-Northernise] the theorisation, Wang (2011) and Morley (2012) suggest a contextualist approach - how technology is developed and established in specific localities and cultural and socioeconomic contexts. Morley (2012) more specifically emphasises incorporating an anthropological approach in technology and media studies considering its methodological emphasis on “relativisation, or defamiliarisation, of all cultural certainties” (p. 93). This implies that the methodological principle of anthropology and ethnography - relativisation and defamiliarisation of all cultural phenomena - would help technology studies to achieve a contextualist approach. Due to its anthropological and ethnographic roots, the theory of domestication is informed by a relativist approach (Silverstone, 2005; Haddon, 2006, 2007, 2011; Bakardjieva, 2011; Morley, 2012; Hartmann, 2013; Bertel, 2013). This is because the theory has shown an appreciation of the cultural and nationalistic aspects of its contexts (see Lally, 2002; Bakardjieva, 2005; Russo Lemor, 2005; Yoon, 2003; Lim, 2005; Ito, 2005; Lim, 2008; McDonald, 2015). Reflecting on the development of domestication theory and its contextualist approach, David Morley (2012) notes, “... we treated consumption as a form of domestication by which technologies are effectively customized by being fitted into local patterns of use...” (p. 80).

Despite its contextualist, relativist approach and methodological principle, the theory of domestication fails to pay attention to issues such as uneven and irregular infrastructural reality of the global South. The theory, instead, is formulated on the premises of seamless and non-disrupted functioning of the infrastructure. Domestication studies thus largely disregarded the issues of disrupted infrastructure and its determining impacts on the ways everyday technologies are adopted, incorporated and used. The focus on the infrastructural issue in urban Bangladesh in this research aims to redress this imbalance. It extends the focus beyond ICTs and investigates how the existence of the disrupted household infrastructure such as load-shedding, or plumbing influence, facilitates or restricts the adoption and domestication of technologies in the household.

The disrupted, uneven and fragmented expansion and growth of urban infrastructure and networks in the global South have been described as “splintering urbanism” by Graham and Marvin (2001). Such conceptualisation is a challenge and critique to the dominant Northern ideal of urban networks and infrastructural development. For Graham and Marvin (2001), the development of urban infrastructure in the global South is fragmented, partial and uneven as opposed to the highly rationalised, standardised and regulated idea of Northern urbanism. The splintering urbanism of the South can be compared with the infrastructural existence that the global North had back in 1950s-1960s (Graham & Marvin, 2001). Splintering urbanism (Graham & Marvin, 2001) could be seen as an example of soft relativism as it highlights and illuminates the local and context-specific practices and organisations of urban infrastructure. My research, thus, engages with the conceptual idea of splintering urbanism (Graham & Marvin, 2001) to analyse and highlight the uneven, fragmented infrastructural development in urban Bangladesh. In particular, the research illuminates how the splintered urbanism and network operates on a set of processes, practices, and strategies such as informality, improvisation, frugal innovations and incrementalism. These processes, in the dominant Northern account of urban studies, are either seen as unconventional or known as survival strategies for the poor, which eventually marks it as an entity of deficiency and lacking. The discussion on infrastructural issues and practices in urban Bangladeshi households in Chapter 4 challenges this notion of deficiency by moving beyond the binaries and dualistic understanding of infrastructure, such as public vs private, formal vs informal, regulated vs unregulated. This implies that the development and practice of infrastructure in the Southern cities are often pluralistic and entangled, rather than dualistic and unitary.

My research pays attention to the basic household infrastructure, such as power and water supply, plumbing and drainage. A consideration of infrastructural unevenness, such as issues with electricity and water supply, provides an appreciation of culturally specific adoption and consumption of technologies in the global South contexts. Bangladesh, for instance, has achieved an impressive growth¹ and penetration in the telecommunication and ICT sectors, but middle-class urbanites still have disrupted access to basic amenities such as electricity, plumbing, water and transport. This research, thus, engages in the exploration of how the existence of a disrupted infrastructure impacts the domestication of technologies in the households.

While the Northern construction of city refers to a well-planned, organised locality with high-tech, uninterrupted facilities and infrastructure, the Southern megacities are largely unplanned, and often survive and grow on informal, self-help networks (Koolhaas, 2004; Morley, 2012). In most of the fastest growing cities in the global South, people live in thoroughly privatised worlds of technological improvisation where survival strategies are based around fragile but flexible local networks (Morley, 2012, pp. 93-95). The fragmented, uneven and often improvised urbanism and infrastructural development of the global South can also offer an alternative imagery and understanding of cities. Empirical knowledge about localised, contextualised infrastructural needs, strategies, and practices in the Southern cities offers a new understanding of the basic, underlying processes of Northern urban lives and infrastructures (see Ward, 2008). In particular, an understanding of urban infrastructures and lives of the global South contributes to the practice of theoretical reflection, which is often termed “theorising back” (see Ward, 2008, p. 407) or “reverse theorising” (see Edensor & Jayne, 2012, p. 330). Edensor and Jayne (2012, p. 330) contend that theorising back involves the “reverse flow of concepts and approaches developed and applied to ‘non-Western’ [Southern] contexts as tools with which to explore cities anywhere, including Western cities, underlining the post-universalism...”. The practice of theorising back, thus, challenges the idea of universalism in social theory and discourses, which is particularly drawn to the imagery of the Northern metropolitans.

¹ The number of mobile phone users in Bangladesh has crossed 130 million, and there are 61 million Internet subscribers (Bangladesh Telecommunication Regulatory Commission, 2016). Retrieved from <http://www.btrc.gov.bd>

In this regard, it is also noteworthy that the longstanding, simplified distinction between the cities of global South and global North has started shrinking due to recent major infrastructural interruptions in the latter (Graham & Thrift 2007). For example, it has been argued that Northern countries will experience more frequent power outages in the future due to peak oil, infrastructural neglect, global warming, the shift to renewable energy resources, and increased demand for electricity; all of which might turn a “smart city” into a dumb one (Byrd & Matthewman, 2014, pp. 85-86). If this happens, the high-tech global North cities might have to replicate the South’s “privatised worlds of technological improvisation”, which is currently used as a survival strategy for third world city dwellers to combat infrastructural fragility in their world (Morley 2012, p. 95). For example, Graham and Thrift (2007) noted that substantial blackouts in 2001 and 2003 in USA and Canada led to the rapid implementation of coping strategies, backup generators, and alternatives by citizens; novel actions that have long been routine in the global South. Thus, an understanding of the sociomaterial construction of megacities in the global South might be important and help to better mitigate infrastructural disruption in developed countries in the future.

By focusing on infrastructural issues, my research aims to address the following questions in Chapter 4: 1) how does the existence of a disrupted and improvised infrastructure impact the domestication/adoption of technologies in middle-class households, and 2) how do the urbanites produce and practice strategies to survive infrastructural disruptions as well as generate comfortable, convenient everyday living. I borrowed and used a set of theoretical and conceptual ideas such as informality, improvised and self-help infrastructure, and frugal innovation from the scholarships of urban studies and urban geographies. I discuss these concepts in greater detail in Chapter 4.

2.5 The Dynamics of Middle-Class Households

As stated earlier, the soft relativist position of this research and the contextualisation of the theory of domestication requires a focus on local social institutions and the everyday domestic practices of middle-class Bangladeshi households. A contextualist approach of questioning and investigating technology often does not emphasise the centrality of technology or technological specification in isolation. It rather begins with an analysis of the interactional system in a particular context and then investigates how technologies are fitted within the structure and

environment (Morley, 2012). My research thus pays substantial attention to the basic interactional/intersectional dynamics of the households, such as gender, intergenerational and class, before attempting to explore the ways technologies are integrated and used within these intersectional dynamics.

The Southern domestication studies (see Yoon, 2003; Lim, 2008; Lim & Soon, 2010; Rahayu & Lim, 2016) tend to illuminate local, nationalistic aspects and elements, such as the social networks, *Cheong* and *Guanxi* (see Yoon, 2003; Lim, 2008; Lim & Soon, 2010; Rahayu & Lim, 2016). In a Chinese context, *Guanxi* refers to extended social groupings and interpersonal relationships outside of one's immediate family, such as one's relatives, school, residential and business contacts (Lim, 2008). *Guanxi* is a key societal value that impacts an individual's communication with the outside world and his/her social mobility (Lim, 2008). Similarly, in Korean culture, *Cheong* is the feeling of affection and kinship ties. Koreans treasure and strive to maintain *Cheong*, the feelings of affection and "we-ness", which are shared with family, close friends and long-term acquaintances (Lim, 2008, p. 193). Following this tradition of reflecting on context-specific social networks and cultural values, my research also foregrounds local understanding of gender roles, intergenerational dynamics, and patronage.

Members of households negotiate their use of technologies for themselves and for each other in context specific ways. As Kadi (2013) notes: "The household is not only a spatial location for domestication processes, but describes specific social relations between individuals as well as between different households" (pp. 100-101). My research and engagement with the literature stress that the dynamics of this negotiation involve an interplay of gender, generation and patronage/class. These three dynamics are the key organising principles of everyday domesticity, which determine the power structure of the households, the allocation of resources, and the formulation of the domestic rules and regulations. It also implies that the household economy, more precisely the moral economy of the household, is influenced by the broader, societal dynamics and politics of gender, generation and patronage/class in the middle-class dwellings in Bangladesh.

2.5.1 The Urban Middle-Class

The class formation of present Bangladesh is shaped by the past colonial rules, including British imperialism until 1947 and Pakistani colonisation until 1971 (Sabur, 2010). The old middle-class of postindependence Bangladesh during the 1950s and 1960s was largely based on land holding and agriculture (Sen, Hossain, & Mahzab, 2012). With neoliberal economic reform during the 1980s, a mass privatisation and denationalisation of enterprise was initiated. After embracing a neoliberal economic policy and the departure from the ideology of socialism and state ownership, the country is now firmly intertwined in the global economic system as a peripheral capitalist economy (Muhammad, 2010). “Since the onset of economic liberalization in the 1980s, the number of private banks, shopping malls, health clinics, hospitals, schools, and universities has skyrocketed in the cities of Bangladesh, which has brought wealth for the growing middle class” (Jensen, 2014, p. 154).

The newly emerged urban middle-class over the last couple of decades is an after effect of the economic reforms and open market policies. This new middle-class constitutes a powerful consumer category compared with its colonial predecessors who used to take pride in austerity and traditional norms and values (Karim, 2012). The urban salaried middle-class is highly influenced by, and responsive to, several external forces including globalisation, modernity, liberalism, neoliberalism, consumerism and extensive exposure to powerful media (Karim, 2012). In the context of liberalisation, the urban middle-class is located as a dominant class, which is the beneficiary of the neoliberal political economy. They are the agents of social transformations related to gender, sexuality and consumption, particularly the changes in gender relations, representations and power dynamics within the household (Karim, 2012).

Nevertheless, due to the diversity, dynamism and ever-changing nature of demographic and cultural elements, describing the middle-class in the South Asian region is a difficult task (see Ganguli-Scrase, 2009; Baviskar & Ray, 2011). For Karim (2012), “Middle class is not explicitly categorized in economic statistics in Bangladesh, and it is mainly understood as a self-identified class-identity that one usually carries as part of the family legacy. The spectrum of income capacity within the middle class is wide...” (p. 12). Drawing on Liechty (2003), Sabur (2010), Baviskar and Ray (2011), and Karim’s (2012) work on the South Asian middle-class, in my study, I do not describe Bangladeshi middle-class merely in its economic capacity and income. I am more drawn to the way Mapril (2014) described it as a status group. My

research conceives the middle-class as a social group which has involvement in some white-collar professions or businesses with a relatively stable income, have tertiary-level educational qualifications and a greater investment in attaining such qualifications, and most importantly, who identify themselves as middle-class, with middle-class values and morality that are achieved through social and cultural capitals (see Sabur, 2010; Karim, 2012).

2.5.2 Intergenerational Dynamics

With the rise of a wage-based urban economy and rural-urban migration, the landscape of the middle-class household has changed; these factors have contributed to the decline of multigenerational living arrangements in Bangladesh (Sabur, 2010; Karim, 2012). With the reduction of the household size to two-generational living, the young children are confronted with ever-greater control and regulations. Children are often considered the center of all material and emotional functions of the household, including its financial and recreational management. White (2007, pp. 505-506), for example, noted that a common intention of women's secret savings from the family budget is to provide a little extra for children - whether it is food, clothes or stationery. It reflects how parents always make the effort to provide children with a good life, and at the same time, how a household's economic and other decision making is often centered on children's wellbeing.

For White (2007), "the dominant way in which children and their entitlements are codified in Bangladesh is not through the idiom of rights, but of guardianship" (p. 510). It is an important social institution in Bangladesh, and children's lives are governed under this institution. In local culture, the conceptualisation of the idea of parenthood and childhood is shaped by the idea of *Obhivabokotto*. The principal notion is that "children's membership of the community is not automatic, not theirs 'by right', but is derived through their relationship to someone else, typically their father" (White, 2007, p. 512). A key responsibility of a guardian is to "make a person", or *manush kora* in the local term. In other words, the process of making a person refers to children's socialisation, which involves providing material and moral resources to them to enable them to achieve a set of skills to become responsible members of the community. The material and moral resources involve food, shelter, clothes, education, mannerisms, religious and ethnic values, generational and gender norms (White, 2007).

Children's agency is a complicated issue to comprehend in the Bangladesh context. This is because local concepts and traits of guardianship sharply contrast with the idea of children having their own voice and autonomy. For Doftori (2004), in Bangladesh, autonomy or self-determination of children is considered outrageous, akin to spoiling the child, and also as a source of threat to the authority and control of parents or adult figures. Local norms and values of respect for seniority give adults profound authority over children. It is believed that "parents know what is best for the child", and thus, they have the right to make decisions on behalf of their children. Children are not considered independent individual entities who can make decisions on their own. Such a conceptualisation of the parent-child relationship diminishes any space and possibility for children's agency and negotiation.

Yet, it would be wrong not to take into account the increasing sense of the child's role as an agent or negotiator in the global South (see Lim, 2008). This is largely due to rapid changes in society and family life. Increased life choices, growing individualisation and the gradual challenges to traditional family practices all generate new parent-children relationships that are less authoritarian and more accepting of children's autonomy (see Williams & Williams, 2005; Lim, 2008; Haddon, 2015). For Williams and Williams (2005, p. 315), traditional hierarchical, authoritarian parenting is being replaced by greater intimacy and emotional parent-child interactions. Focusing on the parenting project and the local idea of guardianship and parental obligations, Chapter 5 of this thesis discusses how the parents attempt to control children's access to digital technologies and the children, in turn, attempt to evade the regulations and achieve greater agency. The chapter also examines how generational dynamics and age impacts the access to and use of technologies and how, in turn, technology influences intergenerational dynamics and relationships between parents and young children in middle-class Bangladeshi households.

Further, in Chapter 5, an analysis of parent-children dynamics in the middle-class context challenges and unsettles the "partial" images of childhood and children in Bangladesh, which have been described by White (2007) as "a grim picture of the lives of Bangladeshi children" (p. 505). White (2007) argues that a focus on the issues of infant mortality rate, child labour, and the poor nutrition quality might generate a poor portrait of Bangladeshi children and their lives. This bleak picture is "the subject of numerous policy, media, and research reports, this is how the children of Bangladesh figure in the popular imagination" (White, 2007, p. 505). White (2007) further suggests a positive picture of children and childhood, delineating how children

are warmly welcomed and celebrated in Bangladesh. Reflecting on these contradictory images of childhood, White (2007) notes that "... it is tempting to valorize one and ignore or reject the other" (p. 506). It is, instead, worth noting that "... the opposing images derive from the fact that there are diverse discourses governing representations of children in Bangladesh" (White, 2007, p. 506). The discussion of parent-children relationships over the use and consumption of domestic technologies, in Chapter 5, will contribute to these "diverse discourses" of children and childhood in Bangladesh.

2.5.3 Gendered Roles, Patriarchy and the Division of Labour

The traditional gender role of men as breadwinners and woman as nurturers persists in middle-class Bangladeshi households. Karim (2012) argues that men's and women's distinct, defined roles and responsibilities, as well as the patriarchal organisation of the household are often articulated in the everyday discourses with popularly used Bengali phrases such as *shongshar chalano* and *shongshar kora*. *Shongshar* refers to a household based on the conjugal life (Karim, 2012). Karim (2012) notes that while men are expected to administer/steer the household (*shongshar chalano*), women are often known to perform the domesticity (*shongshar kora*). In other words, while the household is administered by men, it is often performative for women in Bangladesh.

However, the overemphasis on issues such as patriarchy and women's subjugation (see Kabeer et al., 2011; White, 2012) might obscure the accounts of women's progression and achievement in many sectors, such as education, employment and politics in Bangladesh. Comprehending the practice of patriarchy as boxed, fixed and fossilised in the context of Bangladesh would be far from the reality as there are marks of the impressive progress of women in social, economic and political aspects (Karim, 2012, p. 50). "Since the 1990s, urban middle-class Bangladeshi women's participation in the public domain as active economic agents has shifted the power relations in couples and families..." (Hussein, 2017, p. 1). Women's participation in the labour force has varying degrees of positive impacts including their increased agency and status within the household; in some instances, it poses some challenges to traditional gender roles and patriarchal organisation of the household (see Kibria, 1995; Kelkar, Nathan, & Jahan, 2004; Sabur, 2010; Kabeer et al., 2011; Karim, 2012). Thus, middle-class Bangladeshi women are predominantly highly educated, professional, and urban and liberated with their negotiated traditional role of the nurturer. Karim (2012) asserts that modern, ideal; middle-class

womanhood is a negotiated role and image between the traditional reproductive roles as the nurturers and the newly emerged roles of the economically productive agents.

The narratives of negotiations, subversion, and resistances of gender roles in middle-class Bangladesh contexts might go unnoticed if read through the Northern optics of patriarchy and gender roles. For Farah Deeba Chowdhury (2009), Northern feminist theories largely fail to comprehend the complexities, divergences and nuances of the gender roles and patriarchy in Bangladesh. She, for example, argues that if read through Northern feminism, it would be difficult to discern how motherhood is often used as a bargaining chip by Bangladeshi women to gain power and status within households. Northern feminist conceptions of Bangladeshi motherhood would just see the oppression of women. F. D. Chowdhury (2009) notes, "... motherhood gives women bargaining power with their husbands and families-in-law. It is observed that, sometimes, when children grow up, they support their mothers in bargaining with their fathers" (p. 604). Similarly, the women often tend to use the reproductive roles of the homemakers to exercise their power, agency, and resistance (see Appadurai, 1981; Robson, 2006; Meah, 2014).

Chapter 6 and 7 of this thesis reflect on the aspects of middle-class women's managerial roles in the kitchen and food-related work, and how they often use it to subvert and challenge traditional gender roles. Apart from the gender and class politics and negotiation over the consumption of technologies, a substantial part of these two chapters chart middle-class women's efforts and contribution to what has been described by Hussein (2017) as "family construction and the maintenance of middle-class status".

2.5.4 Patronage: Middle-Class Matriarchy and Its Poor Others

The existence of paid domestic labour is a persistent practice in Bangladeshi households. The management of domestic servitude is predominantly a matriarchal domain. The relationship between middle-class matriarchs and paid domestic workers could be explained and understood through E. H. Chowdhury's (2010) conceptualisation of "new women" in postindependence Bangladesh. The imagery of new women in Bangladesh is constructed against the colonial nationalist construction of middle-class women as elite, educated and spiritual (Chatterjee, 1989, p. 240-243), which is influenced by the linear narratives of development, modernisation, and global feminism (E. H. Chowdhury, 2010). The Northern linear narrative of development

perceives women's emancipation as the benchmark of progress for local women. It creates a competing and contradictory identity of local women as the saviour as well as the victim. In this narrative of emancipation and development, the poor women are the subject of religious and patriarchal oppression and can be uplifted by their integration into global capitalist development initiatives, such as the garments industry or NGOs (E. H. Chowdhury, 2010, p. 302). On the contrary, the educated middle-class women become the local advocates of the development initiatives and empowering programmes. Their role is to uplift and empower the poor women (E. H. Chowdhury, 2010, p. 302). These two different roles of local women in global capitalism and development programmes mark a clientele relationship between the middle-class and the poor.

E. H. Chowdhury (2010, p. 309) argues that, drawing on Goetz's (2001) work on the women development professional in Bangladesh and Aditi Mitra and Jean Van Delinder's (2007) ethnographic research on the elite NGO women workers in Kolkata, the elite matrons are often not driven by feminist goals of social change and resistance. E. H. Chowdhury (2010) notes, "... these women were uncritical of the patriarchal aspects of their own culture and often expressed 'patronising and dismissive' views regarding poor rural women, the very same group that they are in the business of 'serving'" (p. 309). The women development professionals perceive themselves in the patron's positions who rescue and empower the oppressed "other women" (Mitra & Van Delinder, 2007).

The "uplifting project" and patron-client relationship endures in the domestic realm of middle-class Bangladeshi households. The model of "two competing, contradictory categories of women" (E. H. Chowdhury, 2010, p. 302) can also be applied within the domestic realm to understand the relationships between modern, liberated middle-class madams and their others - the poor rural/urban women as potential paid domestic workers. As E. H. Chowdhury (2010) argues that the poor women are often perceived as the client of, and rescued by, middle-class women, the same can be argued for the relationships between middle-class matriarchs and poor paid domestic workers. E. H. Chowdhury (2010, p. 310) argues that despite the consensus on women's subservience status across the social classes, gender and development studies often fail to pay adequate attention to "the power of women of certain social classes over others". For E. H. Chowdhury (2010, p. 310), the relationship between these two categories of new women is a "hierarchical and codependent" one. Chapter 7 of this thesis highlights how the hierarchical relationships between the different classes of women are played out in the domestic

settings over the consumption of technologies. In particular, it reflects on how middle-class women often restrict maids' access to material and symbolic resources such as domestic technologies to protect and preserve their "middle-classness" - the distinctive lifestyle and mannerisms of the middle-class. In discussing the intersectionality of class and gender over the consumption of technology, I turned to Bourdieusian analysis class. I will explain this in greater detail in Chapter 7.

The discussion of household relationships thus far suggests that there is a coexistence of conflicting dynamics. For instance, a strong sense of guardianship/*Obhivabokotto* and children's autonomy coexist. Similarly, defined traditional gendered roles and division of labour, and the newly negotiated middle-class femininity coincide in households. Such coexistence of conflicting dynamics suggests an ambiguity and ambivalence (see Bauman, 1990) as opposed to purity, dualism and orderly existence in a cultural and material world. These anomalies and irregularities are not exceptions, rather they are normal in locations such as Bangladesh, and often represent a complex disordering and rapid social change. The empirical discussion in Chapters 5, 6, and 7 encompasses how everyday domestic technologies are appropriated within the rapidly changing, complex, and often equivocal dynamics of the household and how, in turn, appropriation of technology defines or redefines those dynamics and relationships.

2.6 Chapter Summary

This research operationalises domestication and the everyday use of technology as an assemblage of humans and nonhumans. Thus, the empirical discussion of this thesis stresses a number of factors, including technology itself. It focuses on the context-specific usage and practices around technology, the practices and characteristics of domestic labour, routine and rituals, and space and time within which technology is adopted, accommodated and used. Drawing on the co-determinism or mutual-shaping approach, this research is largely guided by two broad questions: 1) how the members of the households create and develop their own meanings and practices of everyday domestic technologies, and in turn, 2) how these technologies reproduce or redefine and restructure the everyday domestic practices and relations.

The data collection and analysis was administered based on: 1) appropriation - how technology is brought into the home; 2) objectification - how it is physically disposed of, positioned and displayed within the home; 3) incorporation - how technology is used and implicated in the daily routines; 4) conversion - what the meaning and significance of technology is. The fieldwork and data analysis were carried out with an awareness that the processes of domestication “can be considered as neither discrete nor necessarily as evenly present, in all acts of consumption” (Silverstone, 1994, p. 123-124). These four phases of domestication of technologies can overlap and take place simultaneously (Kadi, 2013, p. 21). Evaluating four phases of domestication and the notion of the moral economy of households, a set of broad themes were developed to guide the fieldwork and the data collection process. I will detail this process of development of themes and fieldwork in Chapter 3.

Chapter 3

Research Methods

3.1 Methodological Approach

My methodological choices for this research were informed by a tradition of domestication studies (see Livingstone, 1992; Silverstone, 1992; Habib & Cornford, 2002; Lim, 2005; Kadi, 2013; McDonald, 2015). I opted for a qualitative approach, which allowed me to collect rich, comprehensive, and contextual data and information about middle-class households' consumption of domestic technologies. A qualitative approach emphasises words and meanings, rather than quantifying the researched problem/issue. It is an umbrella term for a range of data collection methods and techniques that explores and accentuates how an individual or group understands, experiences, interprets and produces the social world (Sandelowski, 2004; Bryman, 2008; Hammersly, 2014).

The qualitative approach is often preferred for domestication studies for a number of reasons. As Haddon (2011) asserted, for domestication research, "... an in-depth approach is often favoured, which can include interviews, observation, and a range of other methodologies to elicit this information. Obviously, like detective work, it involves fitting the pieces together and hence interpretation" (p. 313). A qualitative approach can better grasp and apprehend the meaning, impact and significance a technology has on its users over a quantitative one (Kadi, 2013). The attributed meaning and social construction of technology are well captured through the stories of its users from qualitative fieldwork (Kadi, 2013).

A large part of my research is an ethnography of the consumption and use of everyday technologies by a number of Bangladeshi households. Such ethnography is a qualitative study of a group and community and their culture in their natural settings (Curtis & Curtis, 2011; Griffin & Bengry-Howell, 2008). The early ethnographic work (see Malinowski, 1922; Mead, 1928) involved an imperialist attempt of studying the native, indigenous people and their culturally specific behaviours by Northern scholars and researchers (Griffin & Bengry-Howell, 2008; Curtis & Curtis, 2011). Contemporary ethnography has evolved beyond the exotic/other and now has an emphasis on the mundane, on everyday life (see Silverstone, Hirsh, & Morley,

1992; Berker et al., 2005; McDonald, 2015). The locus is primarily Northern, modern, industrial, capitalist society (see Curtis & Curtis, 2011). It now stresses the importance of comprehending the meaning and cultural practices of people from within everyday contexts (Griffin & Bengry-Howell, 2008). My research adopts this contemporary approach to the ethnographic tradition, and orients it South, in exploring the everyday life of the middle-class Bangladeshis.

In ethnographic research, data is usually collected through participant observation, and this is often supplemented by other techniques, such as in-depth interviews (Curtis & Curtis, 2011). At its richest, the multiple data techniques give rise to what Marcus (1995) call a “multi-sited” ethnography. My research aims for such comprehension, albeit limited by significant research constraints. I have used multiple data collection techniques, including participant observations, semi-structured interviews, an autobiographical component and researcher’s reflections, and field notes.

3.2 Participant Observations and Semi-Structured Interviews

Naturalistic observation or observing the participants in their natural settings is an integral part of ethnographic research. Observation is a data collection technique that involves observing participants’ actions and activities along with the physical settings (Angrosino & Rosenberg, 2011). Marshall and Rossman (1989) describe observation as “the systematic description of events, behaviors, and artifacts in the social setting chosen for study” (p.79). I visited 14 households to observe how the members of the households use and appropriate domestic technologies in their natural settings, and how they make rules and create meanings of technologies in their day-to-day life. I visited each participating household between three and six times and stayed there for several hours at different periods of the day. I kept notes of all possible actions, interactions and behaviours of the participants. I had numerous formal and informal conversations with them about various different topics, both relevant and irrelevant to my research. The reliability and integrity of the sample size were determined and guided by the saturation principle when the collection of new data does not shed any further light on the issue and topic under investigation (Mason, 2010). Mason (2010) noted: “If a researcher remains faithful to the principles of qualitative research, sample size in the majority of qualitative studies should generally follow the concept of saturation...” (para. 2). I felt that my

data was rich enough to provide sufficient coverage of the topic to allow me to stop during the last phase of the field work.

To complement my participant observation, I interviewed 32 members of 14 households. The processes of data collection and analysis took place from November 2013 to March 2015. I collected my field data in two rounds. The first round of data collection took place from November 2013 to February 2014 and the second round was from November 2014 to January 2015. In the first round, I visited eight households and conducted eighteen interviews. In the second round, I observed six more households and conducted fourteen interviews.

The average duration of interviews was approximately 60 to 70 minutes. The interviews were semi-structured. Semi-structured interviews were a balanced approach and technique for obtaining information since it allowed me to start with some broad topics in mind to guide the trajectory of the interview without restricting the interviewees from telling their own stories and experiences in greater detail (Rabionet, 2012). From the review and assessment of the theory and related literature (see Chapter 2), four key issues and topics were developed to guide the interviews and observations in the participatory households:

1. Adoption of technology: acquiring the ownership individualised or shared; how and when the technology is adopted and brought into the home.
2. The display, placement, and accommodation of technology in the household: how space is used to display and accommodate technologies; the making and implementation of the rules and restrictions to regulate the access to technology.
3. The routine, frequency, duration of using technology.
4. The emphasis, meaning, and significance the technology has on the user's day-to-day life.

The first couple of interviews were relatively short, difficult and dry due to my inexperience of how to make the participants talk freely. Gradually, I grew in confidence. At that stage, I mostly let my participants tell their story and restrained myself from intervening as “Part of that research process involves allowing those researched to explain their actions in their own words...” (Haddon, 2011, p. 313). I also became more self-reflecting, realising that “Personal involvement is a great strength of the responsive interviewing model because empathy encourages people to talk...” (Rubin & Rubin, 2005, p. 31). Self-reflection and empathising

helped to improve the quality of interviews (Rubin & Rubin, 2005). It turned the interviews into two-way active conversations. However, I was always concerned about not influencing my participants in a particular direction and was aware of the fact that the researcher's own emotions and biases can influence how the interviewee responds (Rubin & Rubin, 2005).

Observation and interview techniques are no longer considered as a tool to collect objective data to use neutrally for scientific purposes, at least by qualitative researchers (Fontana & Frey, 2005; Angrosino, 2005). This has not been the case in sociology for several decades. Rather, interviewing is now seen as a collective, collaborative effort where two or more people exchange and share their experiences, views and opinions. This process leads to “contextually bound and mutually created story - interview” (Fontana & Frey, 2005, p. 696). Participants in qualitative research are no longer “referred to as subjects of research, but as active partners who understand the goals of research and who help the researcher formulate and carry out the research plan” (Angrosino & Rosenberg, 2011, p. 467). My participants were educated and certainly cognizant enough to understand the purpose and objective of this research. Some of them even acknowledge and express concerns about the lack of research and investigation involving the middle-class and their everyday life. The participant-researcher relationship for this study, therefore, was a partnership or collaborative effort (Fontana & Frey, 2005). I let my participants ask questions. My participants not only shared their own experiences or opinions, but also sometimes asked about my experiences. My middle-class identity played a part as my participants often referred to me during the interviews: “as you have probably seen this”, “you might have seen the same thing in your family”, or “as you would probably understand or know”. It was evident that my middle-class identity helped me and my participants to relate to each other's experiences and understand each other better.

3.3 Participant Recruitment, Access to the Field, Researcher's Positionality

For the recruitment of participants, I used the snowball or chain-referral sampling technique. In this technique of sampling, the participants are recruited using the networks and references from the initial pool of the participants. This technique is particularly useful in getting access to a hidden population and research about sensitive topics and groups (Heckathorn, 2011). It is also useful for recruiting participants with particular characteristics and experiences and who

are likely to know each other (Cramer & Howitt, 2004). I was looking for households with the following characteristics and traits:

1. The members of the household identify themselves as middle-class.
2. The household is at least two-generational.
3. At least one parent has stable, well-paid employment.
4. At least one parent has a tertiary-level degree.
5. The estimated average size of the household is three to five members.

As I mentioned in Chapter 2, this research conceptualised the middle-class as a status group. For Karim (2012), middle-class is not explicitly classified in economic terms in Bangladesh. She further argues that the spectrum of income capacity within the middle-class is wide (p. 12). For her own research *called Living Sexualities: Negotiating Heteronormativity in Middle Class Bangladesh*, Karim (2012, p. 13) noted, “Engagement with some white collar profession (and business), educational qualification for engagement with these professions; self-identified middle-class values that are acquired through social and cultural capitals – are crucial elements of class identification”. Drawing on Karim’s (2012) work, I decided to opt for the middle-class households that have at least one parent with stable income rather than specifying an income bracket. The work of Sabur (2010), Karim (2012) and Mapril (2014) suggest that the educational aspirations and investment is one of the core characteristics of middle-classness in the context of Bangladesh. Reflecting on the emphasis on education outlined in the previous studies, I selected the households that consist of one or both the parents have a tertiary level education. Further, the two generational households were carefully chosen with an intention to observe the intergenerational dynamics and relationships.

I started my fieldwork with the initial three households that responded and volunteered to participate in my research, based on my advertisement (see Appendix C and F). The advertisements were circulated on the social media and the local grocery stores and markets. I later used the networks of that initial pool of participants to recruit more participatory households. The participants were very helpful in circulating information about my research project among their social networks such as friends and colleagues and providing me the contact information (with their consent) of other potential participants. Some of my participants accompanied me when I made the first visit to a participatory household from their networks, which helped me gain the trust of those participants easily.

My participants were largely employed in government and non-government organisations. Their professions ranged from college and university lecturers to government civil servants, bankers, and businessmen. In five out of fourteen households, the wife/matriarch had a professional career. The age of the married couple/parent participants for this study ranged from 30 to 55 years. Eleven out of fourteen couples were aged between 30 and 45 years, while the rest of the three couples were aged between 45 and 55 years. I interviewed four children from four different households who were aged between 18 and 20 years. All these four young participants were tertiary students at different stages of their study. As advised in my ethics approval, I did not interview any individual 17 years old or under.

Only one of my participatory households was three generational where the parents, grandparents, and grandchildren were living together. Unfortunately, I could not interview the grandparents of the household, as both of them were not comfortable with the idea of being interviewed and recorded by a stranger. However, I had numerous informal conversations with them. The elderly couple did not have any problem regarding my access to and staying in their house. They were cordial and friendly with me just as any other participants in this research. I did not encounter any obstacles in getting access to their room or observing them within the household. Besides this, a young female medical student living with her parents and younger sister declined to be interviewed as well. Her parents noted that she was very introverted and shy, and was not comfortable having a conversation with a person she barely knows. Four out of fourteen households had live-in maids, while two households were without any forms of paid domestic help. All four of the households with live-in maids had working mothers.

Being an insider, my access to the participatory households was not a difficult process. My middle-class identity played a large part in this. I was pleasantly anticipated and accommodated in the households. As mentioned earlier, education is highly valued in the urban Bangladeshi middle-class context; I was largely appreciated by the participants for being an unmarried woman who is living abroad with the aspiration of achieving a PhD degree. I was also idealised as a role model for the young children in the participatory households as many of my participants expect their children to pursue higher education from a reputed university and become successful in respected professions. My participants largely expressed their satisfaction at getting an opportunity to contribute to my study.

For ethnographic research, rapport building is an important component. “Ethnographic research entails a long-term commitment both on the part of the ethnographer and the participants in the field. It involves establishing reciprocal relationships based on mutual trust and understanding, which in turn demands a certain rapport” (O’Reilly, 2009, p. 175). Being an insider helped me to develop the rapport quickly, as I did not have the problem of understanding the participant’s language and culture (Fontana & Frey, 2005). A close rapport between participant and researcher opens the avenue for a more informed research (Fontana & Frey, 2005). I positioned myself as a middle-class, female researcher in the participatory households and strategically used my personal identity (e.g. gender, and middle-classness) to build rapport with the woman, children, and man of the households. For instance, I tried getting along with the woman and the children of the household first. Once I gain their trust, it was easier for me to build a rapport with the man of the house. Initially, my participants were conscious of my presences in their household and often tried to act and conduct themselves in a certain way. As I got along well with them, they started relaxing and acting informally even in my presence, which allowed me observing their day-to-day activities in the natural settings.

After my initial introduction to the participants and introducing my project to them, I often encountered a lot of questions about my experience of living abroad. It was a common warm-up topic for starting a conversation with most of my participants, which helped me to gain their trust as well as making them comfortable to tell their own everyday stories. I was always welcomed with tea, coffee, several different sweet delicacies, and snacks, as food plays an important part in Bangladeshi culture of hospitality and entertainment. As advised in my ethics approval, I offered my participants a small gift as a gesture of appreciation for their contribution to my study. My participants were generous, patient and lenient, apart from the timing of interviews and all other informal conversations that I had with them during the observational period. They were consistently very keen to share their stories.

An overview of the participatory households:

Household no	Household composition	Age	Profession	Interviewed or not
1	Husband	45	Self-employed/business	yes
	Wife	42	Housewife	Yes
	Daughter	18	Tertiary student	Yes
	Son	12	School student	No
2	Husband	35	Self-employed/business	Yes
	Wife	35	Housewife	Yes
	Son	6	Student	No
	Son	4	Pre-schooler	No
	Daughter	1	Toddler	No
3	Husband	45	Banker	Yes
	Wife	40	Housewife	Yes
	Son	18	Tertiary student	Yes
	Daughter	10	School student	No
4	Husband	45	Self-employed/business	Yes
	Wife	40	Nurse	Yes
	Live-in maid	16	Domestic worker	No
	Live-in maid	16	Domestic worker	No
5	Husband	55	Pharmacist	Yes
	Wife	45	Housewife	Yes
	Son	18	Tertiary student	Yes
6	Husband	55	Lawyer	Yes
	Wife	50	Housewife	Yes
	Son	24	Employed in the service industry	No (was on a trip)
	Daughter	16	school student	No
7	Husband	38	Civil servant	Yes
	Wife	35	Civil servant	Yes
	Daughter	8	School student	No
	Live-in maid	55	Domestic worker	No
8	Husband	35	Self-employed/business	Yes
	Wife	35	Housewife	Yes
	Son	7	School student	No
	Daughter	1	Toddler	No
9	Husband	58	Banker	Yes
	Wife	55	Housewife	Yes
	Daughter	25	Medical student	No (declined to be interviewed for personal reason)

	Daughter	19	Tertiary student	Yes
10	Husband	38	Civil servant	Yes
	Wife	35	Housewife	Yes
	Son	8	School student	No
	Son	6	School student	No
11	Husband	40	College lecturer	Yes
	Wife	37	Housewife (left the job of a school teacher)	Yes
	Daughter	10	School student	No
	Son	7	School student	No
	Grandfather	78	Retired school teacher	No (declined to be interviewed for personal reason)
	grandmother	70	Housewife	No (declined to be interviewed for personal reason)
	Live-in maid	20	Domestic worker	No
12	Husband	44	Collage lecturer	Yes
	Wife	42	English language trainer	Yes
	Daughter	14	School student	No
	Son	12	School student	No
13	Husband	42	Civil servant (education)	Yes
	Wife	44	Collage lecturer	Yes
	Daughter	14	School student	No
	Son	12	School student	No
	Live-in maid	55	Domestic worker	No
14	Husband	36	Civil servant	Yes
	Wife	36	University lecturer	Yes
	Daughter	7	School student	No
	Son	4	School student	No
	Live-in maid	19	Domestic worker	No

1.1 Table: An overview of the constitution of each participatory household

3.4 Analysing Interview Data

For analysing data and developing themes, I used both deductive and inductive techniques. By this, I mean that the themes were theory-driven as well as data-driven (Braun & Clarke, 2006, Boyatzis, 1998). A set of themes was identified from the extended review of the previous domestication studies which largely guided the interview and data collection process. The data collection and analysis was administered based on the four phases of domestication process: 1)

appropriation - how technology is brought into the home; 2) objectification - how it is physically disposed of, positioned and displayed within the home; 3) incorporation - how technology is used and implicated in the daily routines; 4) conversion - what the meaning and significance of technology is. The fieldwork and data analysis were carried out with an awareness that the processes of domestication “can be considered as neither discrete nor necessarily as evenly present, in all acts of consumption” (Silverstone, 1994, p. 123-124). These four phases of domestication of technologies can overlap and take place simultaneously (Kadi, 2013, p. 21). The themes emerged from the literature review included: 1) the spatio-temporal practice of the household: who has access/restriction to certain places and time within the households; 2) the regulations and access to technologies: who makes and establishes the rules to regulate the technology and why; and 3) the micropolitics, gender, intergeneration and class played over the access to and consumption of technologies in the households.

The audio-recorded interviews were translated and transcribed. I read through the transcripts carefully to look for the patterns, themes, and important events (Rubin & Rubin, 2005). “A theme is an *outcome* of coding, categorisation, and analytic reflection...” (Saldana, 2009, p. 13). I analysed the data by using a “reflective close reading” technique (Watson & Wilcox, 2000; Näre, 2011). This technique of reading includes “... reading the transcripts critically, analytically and zooming in on each passage and in dialogue with the theoretical concepts. Moving between induction and deduction, data and theory were crucial for developing theoretical notions from the data” (Näre, 2011, p. 402). This method of data analysis involved three readings of the texts or transcripts. The first reading is an initial quick reading of the paragraphs to get an overall first impression of the topic of the paragraphs. I “familiarise” myself with the data in the first reading (Braun & Clarke, 2006, p. 87). The second reading initiates close reading to zoom in on each sentence of the paragraphs. In this reading, I identified key characters, words, conflicts, and emphasis. The questions raised in the second reading involved, what is going on here? Why is a certain word or phrase used by the participants? What meaning can I make of this? I took marginal notes and analytic memos during the first and second reading of the transcripts (Strauss, & Corbin, 1998) which allowed me to look for codes / short phrases that symbolically assign summative and essence capturing and evocative attribute for a section of language-based data or transcripts (Saldana, 2009).

The third reading prompted zoom out, a kind of distancing so that the theme may emerge (Watson & Wilcox, 2000). The third reading helped to classify the codes by identifying the

patterns, similarities, and contradictions. The back and forth movement between the codes and the theory helped to develop broad themes. For example, during the first and second readings, I identified and classified a set of codes such as “co-surfing”, “instilling morality”, “taboo conversation”, and “bonding with children”. The third reading allowed me to refine the codes and develop a broader theme such “parental mediation” (see Chapter 5). Similarly, the initial indexing of codes such as “prioritising needs”, “rationing”, “maximising back-up” later emerged as a larger theme of “coping strategy and improvisation” (see Chapter 4).

3.5 Limitation and Ethical Consideration

Any social research is shaped by its limitations and constraints, and my research is not an exception in this case. Two major conditions that influenced my research were the constraints of the resources, and ethical considerations. Due to the very limited research funding, I could only spend five months in the field for data collection. Further, ethical considerations of the potential vulnerability of interviewing children (aged under 17) restricted my opportunity to obtain and explore young children’s perception of using and articulating ICTs in detail. Such exploration would have been valuable for this research; that is, to shed more light on the parent-children dynamics of the households.

The decision to not interview children under 17 years old was determined by the University of Auckland Human Participants Ethics Committee (UAHPEC), based on their assessments of potential vulnerability and emotional harm of young children. In contrast, I made a conscious decision to not interview any domestic maids prior to applying to UAHPEC. Protecting respondents and anticipating harm is one of the key responsibilities of a social researcher (Kaiser, 2009). Following that responsibility, I chose not to interview the domestic workers, considering the potential risk of having an impact on their relationships with their employers (see, Chapter 7). This decision similarly restrained me from having access to the maids’ voices and accounts.

I anticipated that interviewing domestic maids and using their data/information with pseudo-name would have been unsafe. The maids often live and work within an intimate setting with their middle-class employers. The live-in maids, in particular, in the urban middle-class dwellings live with the employer in a small apartment or house. It was highly unlikely that I

could have interviewed them or they could have spoken to me without being under implicit threat from the employers. At the same time, any suspicion from the employers about the loyalty of the maids would have caused them losing their jobs. Moreover, I was aware of the fact that often the welfare of the children of the domestic workers are contingent on the middle-class employer's satisfaction and kindness.

Domestic workers are a notoriously difficult group to access for research purposes because of the 'hidden' location of their work in domestic relationships and spaces and the high degree of control exerted over their movements by some employers (Jacquemin, 2004; UNICEF, 1999). But there for future research this ethical issue can be addressed by following the pathways proposed by Natasha Klocker (2012, pp. 7-9). Natasha Klocker (2012, p. 8-9) suggested that the vulnerable and marginalised group such as the domestic worker who work and live within an intimate setting with their employers should be researched and approached only by improving their conditions. The social, physical and psychological harm of the domestic worker can be minimised or eliminated by adopting a peer-interviewing approach (Natasha Klocker, 2012). The former domestic worker can be trained and employed to interview the participant domestic works to foster a sense of ease, empathy and shared experiences (see Kellett, Forrest, Dent, & Ward, 2004; Natasha Klocker, 2012). Furthermore, if possible, the domestic workers should be recruited via employers who have participated in the research, due to the concern that covertly interviewing (without employers' consent) would place them at a risk of punishment (Jacquemin, 2004; Forrester-Kibuga, 2000).

However, my research was undertaken with the due consideration of standard ethical principles of avoiding participants' harm, maintaining participant's individual rights, privacy, confidentiality and informed consent (Fontana & Frey, 2005). I conducted my field work (participant observations and interviews) in the households after the participants had read and understood the participant information sheet (PIS) and signed the consent form. I explained the objectives of my research project and how the information provided by them would be used in this project and satisfied all their queries before they signed the consent forms.

3.6 The Epiphanies and Auto-biographical Components

This thesis began with an engagement of selective autobiographical narratives and anecdotes (see Chapter 1). I used my subjectivity as data for this research. I regarded this engagement as an opportunity to discuss the rationale and significance of this research. I used the anecdotes from my personal diary.

Such autobiographical components, or the epiphanies, may read as a mundane story of someone's life and their credibility as ethnographic insights may be questioned unless they are used with appropriate methodological consideration (Ellis, Adams & Bochner, 2011). When used analytically, supplemented, and framed with literature, they are considered as useful data and reflexive practice for qualitative research. I moved back and forth between the literature and my personal narrative to achieve a reflexive understanding. This allowed me to comprehend how my personal troubles and struggle of being misrepresented and the global misrepresentation of Bangladesh is linked, which is evocative of personal troubles tied to public issues. For me the sorts of analytical, autoethnography debated by Anderson (2006A, 2006B), Denzin (2006), and Ellis (2009) are not that far removed from Mills' (1959) insights.

Chapter 4

Informal, Improvised, Self-Organised and Splintered Infrastructure

4.1 Chapter Overview

In previous chapters, I discussed the use of a study of everyday technologies, drawn from elements of domestication studies, as a way of critiquing and unsettling a number of the global North's assumptions. This chapter, in particular, diminishes the assumptions of, 1) the linear, unitary development and growth of urban infrastructure and technology, and 2) separated, binary practice of formal and informal infrastructure. This chapter probes that the informal arrangements of infrastructure are routinely appropriated by the middle-class of the South. I draw on “splintering urbanism” (Graham & Marvin, 2001), an organising principle that emerges from my theoretical assessment and synthesis in Chapter 2. I find this concept useful to analyse the urbanism, urban infrastructure, and domestic practices of contemporary Bangladesh. As stated, splintering urbanism refers to a nonlinear, fragmented, combined and partial expansion, and the existence of urban infrastructure (Graham & Marvin, 2001). Informality, self-organisation, and improvisation are the crucial mechanisms for a splintered urbanism to be operative. In this chapter, I focus on these three crucial elements and characteristics of splintering urbanism in the context of middle-class households and their domestication and consumption of technologies.

The household is linked to the wider world through its infrastructure. Among many other things, the wires, cables, and pipes that enter the household connect it with the outer world by providing and preparing the ground for the usage of domestic technologies (Larkin, 2013). Infrastructure such as electricity, water, gas, telephony, and broadcasting mediates and shapes the domestic mass consumption of a variety of goods and services (Graham & Marvin, 2001, p. 68). Thus, before gazing into the urban, middle-class households and exploring their consumption and usage of everyday technologies, it is important to pay attention to the basic household infrastructure such as electricity and water, and the related issues. This chapter highlights the uneven, fragmented expansion and existence of urban infrastructure and how

this disrupted infrastructure influences adoption and consumption of technologies in the households.

As already stated, in chapter 2, I am interested in understanding and exploring everyday technology as an assemblage of human and nonhuman entities. This social-material assemblage is a new turn and a way of understanding urban infrastructure. Amin's (2014) work of "lively infrastructure" is an explicit example of such theorisation. Amin (2014) argues, "... both the social and the technological are imagined as hybrids of human and nonhuman association, with infrastructure conceptualized as a sociotechnical assemblage, and urban social life as never reducible to the purely human alone" (p. 137-138). Amin (2014) further notes that "there is nothing purely technical or mechanical about even the most digitalised infrastructure..." (p.138). Infrastructure, thus, is a sociotechnical, human-nonhuman arrangement. Infrastructures are not things, but bundles of relationships (Leigh-Star, 1999; Carse, 2016). Further, Anand (2012) asserts infrastructure as a social-material assemblage that is always in formation. Infrastructure is constantly being made and claimed through everyday practices (Anand, 2012). The conceptualisation of infrastructure and technology as a social-material or human-nonhuman assemblage allows this research to focus on everyday practices, social actors, and the ways of creating, managing and using infrastructure and technologies. It emphasises urbanites' experiences and practices of infrastructure, and their relationships with it.

In Chapter 2, I stated that I will extensively engage with the concepts and infrastructural practices that are often unique and congenial to places such as Bangladesh, more generally to the global South. Hence, the first section of the chapter is devoted to a discussion of theorisation of informality in urban studies following the analysis of a set of practices and organisations of informal infrastructure in the middle-class households. Such practice of informality by the middle-class has been described as "elite informality" by Roy and AlSayyad (2004). The chapter then focuses on the practice and issues of improvised infrastructure and its implications for Bangladeshi households as well as for the global North in the future. The chapter ends with a case study of the domestication of a water filter by one of the participatory households. The case study provides a rich description of a socio-material affiliation in middle-class households by highlighting the everyday struggles and practices of securing infrastructural resources, which are denoted as "socially enacted performance" by Button (2014, p. 86).

4.2 Informal, Self-Organised Infrastructure: A Response from the Middle-Class

Informality and incrementalism are dominant characteristics of the urban system, infrastructures and economy in the global South (Graham & Marvin, 2001). These terms are generally used to describe a deficit model of economy and infrastructure in urban studies (see Roy, 2009; Silver, 2014). In particular, these terms are used to suggest a lack of resources, planning, regulation and efficiency in urban development. Informal, improvised, reworked and retrofitted infrastructure are widely known as tools and strategies for low-income, marginalised urbanites to get access to resources and basic urban amenities. Such a conceptualisation is a denial of that fact that informal, self-organised arrangements of infrastructure and basic urban amenities are often a normal response from the middle-class to combat disruptions and shortages, as well as to improve living conditions in the global South.

In a recent study, for instance, Button (2014) examines the ways Mumbai's middle-class respond to the infrastructural deficit and environmental changes, such as water shortage, through domestic rainwater harvesting. Such a response to and practice of battling water shortage could be seen as an informal, self-configured way of managing and creating infrastructure. The research asserts that rainwater harvesting is increasingly becoming an essential and popular component for middle-class houses in Mumbai as the municipality promotes water saving initiatives. Button (2014) argues that "housing is being repositioned as a water supplier, and thus a site for governing services, promoting middle class responses to shortage and allowing the municipality to roll back provision" (p.2). The study also outlines that the "responsibility for securing water resources in Mumbai's middle class households has thus been shifted onto the residents themselves at the same time as they strive to secure and improve their lifestyles" (Button, 2014, p. 2).

My argument is aligned with Button's (2014) research as I argue that the practice of informal, self-help infrastructure is not limited to marginalised, poor, lower-class urbanites in the global South; rather, it is produced, and practised by the Middle class as well. By this, I mean that the urban Bangladeshi middle-class often use these strategies within everyday domesticity to improve living standards and maximise comfort and convenience, which in turn manifest their class status and purchasing power. This implies the symbolic significance of infrastructure,

which I am also going to reflect on. The section will start by discussing the dominant discourses, debates, and issues around the theorisation of urban informality, and how I employ this concept in my research. While there is a dominant scholarship that perceives informality as a resistance and transgressive act from the marginalised bottom, there is a new attempt (see Roy, 2009; 2011) to theorise it as a deregulated, calculative and planned action used by different social classes in the global South with different purposes and goals. Drawing on the empirical data, this section then reflects on some practices and organisations of informal and self-configured infrastructure in households, such as the installation of an IPS (Instant Power Supply) unit or configuration of plumbing and drainage for a washing machine.

4.2.1 Disputed Theorisation of Informality

Urban informality, historically, is linked to marginalisation and poverty (see Davis, 2006; Lombard, 2014; Roy, 2009, 2011). For Davis (2006), urban informality, more precisely urban informal settlement, has been prompted due to the imposition of the Structural Adjustments Programmes (SAPs) in third world countries during the 1980s by the World Bank and the International Monetary Fund. This is arguably known as the official integration of many third world countries into neoliberal economic policies, which has uprooted the rural poor to move into cities and consequently rocketed urbanisation. The cities are turned into the “dumping ground for a surplus population working in unskilled, unprotected and low-wage informal service industries and trade” (Davis, 2006, p. 175). For Davis (2006, p. 175), the cities were unable to accommodate those who migrated; a surplus population without access to basic facilities and resources. In response to the state’s failure to manage exploding urbanisation or provide resources, low-income urbanites started seeking access to shelter and urban amenities through informally reworking living spaces and networks (Davis, 2006).

For Chukuezi (2010, p. 133), the term informality had always been used in connection with the economies of the Southern countries. “In cities of the global South, the informal economy accounts for up to 40 percent of GDP” (de la Pena, 2013, pp. 4-5). In describing the pervasiveness of the informal sector, de la Pena (2013) noted that informal settlement is home to 25 percent of the urban population, informal transport provides mobility for 60 percent of people and it is estimated that half the workers in the world - around 1.8 billion people - are part of the informal sector. The Southern economy is often a dualistic combination of the formal and the informal economy. While the formal economy refers to the formal, regulated, and taxed

production and consumption processes and economic transactions, the informal one involves the unauthorised, unregulated, and untaxed, and thus, is often conceptualised as illegal by Northern standards (see Chukuezi, 2010, p. 133). However, this outsider understanding of the third world urban economy and infrastructure has recently been critiqued and challenged by urban scholars (Graham & Marvin, 2001; Anand, 2011; Roy, 2009, 2011).

Informality is often perceived as a “symptom of dysfunctional urban societies” (UN-Habitat, 2006, p. ix), or, synonymous with poverty and lack of regulation by the formal system (Roy, 2009). It is largely seen as an unregulated space and activity within urban and infrastructural studies. In particular, the failure of the formal economy and state to fulfill the needs of urbanites prompts the practice of taking things into their own hands to produce livelihoods informally (Jiménez, 2012). Hence, informality is perceived as a transgressive practice by marginalised urbanites of the global South cities to access unaffordable urban essentials such as electricity and water (see Bayat, 2000; Chatterjee, 2004; Neuwirth 2004; Lombard, 2014). For instance, the practice of configuring unsanctioned or illegal connections of electricity in low-income neighbourhoods due to unaffordability is often seen as a criminalised informality. As such, informality is predominantly conceptualised as a revolution *from the bottom by the marginalised* (see De Soto, 2000).



Figure 2: Illegal Connection of Electricity; Illegal electricity connections used by various roadside shops in Bangladesh

Photos credit: Tanvir Ahammed

Source: retrieved from <http://bdnews24.com/media-en/2014/10/18/illegal-power-connections>

Instead, the work of Castells and Portes (1989, p. 12) was a ground-breaking one as it marks the departure from “economic dualism” and “social marginality”. Castells and Portes (1989, p. 12) argue that informality is not a survival strategy performed by society’s marginalised. “The informal economy is not a euphemism for poverty. It is a specific form of relationships of production, while poverty is an attribute linked to the process of distribution” (Castells & Portes, 1989, p. 12). Castells and Portes (1989) further detailed how informality can be applied to any income-generating production relationships and activities, regardless of the class structures and socioeconomic milieu. They noted that both the practice of street vending in Latin America as well as the practice of moonlighting by a software consultant from Silicon Valley for additional income can be seen as an example of informality (Castells & Portes, 1989). “Thus, we depart from the notions of economic dualism and social marginality which have been so pervasive in the development literature...” (Castells & Portes, 1989, p. 12).

Following Castells and Portes’s (1989) work, Roy (2009) and Lombard (2014) later suggest that the productive and transformative potentials of informality have been ignored by the dominant discourses of urban studies. Roy (2009) suggests a different significance of informality by linking it with forms of power and wealth. It epitomises class power and subsequently differentiates the affluent middle-class from the slum dwellers. The practice of informal urbanisation and infrastructural development is as credible for wealthy urbanites as it is for slum dwellers (Roy, 2009; 2011). By refuting the dualistic framing of formality and informality as opposite of each other (see Lombard, 2014), Roy (2009) conceptualises informality as a system that operates as a parallel to the formal one in the urban planning and infrastructure of the global South. In reality, formality and informality have a tangled, reciprocal relationship (Lombard, 2014, p.10).

To explain this complicated relationship between formal and informal sectors, Roy (2009) delineates the example of an “informal vesting” by the state government of West Bengal, India. She argues that the term informal vesting may seem to be an “oxymoron” as vesting is the legal appropriation of land by the government in the public interest while informality signifies an extra-legal affair. However, the use of an informal vesting process allowed the state government of West Bengal to reclaim the land from the peasants for resettlement of central city squatters ten years later, and yet ten years later, allowed the government to displace the squatters and the remaining peasants from the same land for building a peri-urban township and Special Economic Zones (Roy, 2009, p. 84). Roy (2009) further contends that this informal

vesting process signifies an informality from the *top* rather than informality as a subaltern revolution from the *bottom*. Such a practice of urban informality challenges the conceptualisation of the dualistic economic system: formality as legal and informality as illegal. At the same time, it extends the scope of theorisation and practice of informality in different contexts for different purposes. Thus, informality is a *deregulated* system rather than an *unregulated* one (Roy, 2009, p. 83). For Roy (2009), deregulation refers to a “calculated informality”, which involves “purposive action and planning, and one where the seeming withdrawal of regulatory power creates a logic of resource allocation, accumulation, and authority” (p. 83).

However, there are different and opposing views and arguments on the capacities and potentials of the informal infrastructure. Analysing the informal livelihood networks in Nigeria, Meagher (2011) argues that the popular organisational strategies and coping mechanisms may fail to foster economic empowerment of the poor. Meagher (2011, p. 51-52) contends that informal organisation of infrastructure and strategies might not be economically and politically empowering for the poor due to their cliental relationships with the urban governances. However, informality has a different implication on the Southern middle-classes due to their class power, financial capacity, skills and social networks. The next section engages in the exploration of the practices and implications of informal infrastructure in the households.

4.2.2 The Practice of Informality

Informality is frequently used by the middle-class Bangladeshi urbanites as a strategy to improve living conditions and maximise comfort. The installation of self-financed heating and cooling systems or provision of electricity and water supply in households embodies a class-distinctive informality. In particular, installation of IPS or waste water provisioning for washing machines illustrates self-help terms of informal planning and implementation of urban infrastructure.

“In cities of the global South,... regular electricity interruption is a fact of life and all users work overtime to develop ways of coping with the predictable or unpredictable losses of power” (Graham & Thrift, 2007, p. 13). Similarly, in Bangladesh, power cuts are a regular problem due to the gap between actual demand and generation of electricity. This gap is mitigated by rolling blackouts or feeder rotation strategies, which involve purposive and

planned power cuts for certain hours in certain areas, locally known as *current nai*: no current or no electricity. To combat the situation, the households depend on an alternative, personalised, provisional source of electricity known as IPS². IPS is a small, battery-sourced standby electrical supply unit, which supplies power to households when there is none from the national grid. “A general IPS consists of a charger circuit, a battery, an oscillator circuit and an output circuit. The charger circuit charges the battery properly by using the main supply when it is ON” (Mahbub et al., 2012, p.1). IPS is different from conventional generators. It is completely automatic and does not need any fuel. Thus, it does not produce any noise or air pollution like a generator does (Mahbub et al., 2012, p.1).



Figure 3: Instant Power Supply Unit (IPS)

Sources: The photo (right) was taken by the researcher in the participatory household
The photo (left) is retrieved from <http://www.rahimafrooz-ips.com/about-us.html>

Another practice of informality is seen in the self-configuration of plumbing and drainage systems for the installation of washing machines. The washing machine is still not a widely adopted domestic technology for the middle-class. Everyday washing is usually performed manually, largely by domestic maids. The lack of provisioning for flushing the waste/used water discourages households from adopting washing machines. The households that have

² Instant Power Supply was introduced by Rahimafrooz Bangladesh Ltd. in the market back in 1992. The term IPS was first coined by the company and established now as category over the period.

already adopted and domesticated a washing machine had to arrange their own waste water disposal. For example, one of my participants, Mrs. Rahman, who resides in a rental apartment, noted that she desperately needs a washing machine, but could not accommodate it due to the absence of a system for flushing out the used water from the washing machine. She said:

Right now, I do not have any paid domestic help, and I badly need a washing machine. I so wanted to buy it but I could not. I live in a rental apartment and there is no provision for installing a washing machine. The plumbing and drainage system is not suitable to accommodate a washing machine. Since it is a rental living space, I need to have an approval of the landlord for setting an informal self-financed arrangement done for the washing machine installation. If it was my own house, I would not mind spending money to get the plumbing done for a washing machine.

Another participant, Mr. Ahmed, reported how he bought a washing machine after he moved into his own house and planned for its installation. He noted:

Generally, the urban households in Bangladesh do not have a suitable drainage system to drain out the water of a washing machine. If you want to use a washing machine you have to drain out the water through an extra hosepipe to the bathroom, which is bit odd... I purchased a washing machine after I bought my own house. I was concerned about infrastructural problem around the washing machine. Thus, I planned and arranged proper plumbing for the washing machine while making my own house. Even I kept this provision for my tenants so that they can use the washing machine if they wish to.

Mr. Rahman, who also lives in a rental apartment, reported:

I got the plumbing and drainage done to install a washing machine in my rental apartment with my landlord's approval. I did not mind paying from my own pocket for that. I have the capacity to purchase a washing machine and carry its utility cost... Then why not?

Drawing on the comments of my participants, the self-configured arrangement of plumbing and drainage for washing machines illuminates the forms of informality that are deregulated, purposive and noncriminal (Roy, 2009). The arrangements for plumbing and drainage highlight an informal organisation of infrastructure with purposive planning to secure the essential amenities, as well as to improve the living standards. Such configuration of informal infrastructure is often far from indicating transgressive practices. As Roy and AlSayyad (2004)

noted, "... it has become obvious that informal housing and land markets are not just the domain of the poor but that they are also important for the middle class, even the elite, of Second World and Third World cities" (as cited in Roy, 2005, p. 149). Roy (2005) further delineates:

Such trends point to a complex continuum of legality and illegality, where squatter settlements formed through land invasion and self-help housing can exist alongside upscale informal subdivisions formed through legal ownership and market transaction but in violation of land use regulations. Both forms of housing are informal but embody very different concretizations of legitimacy. The divide here is not between formality and informality but rather a differentiation within informality. (p. 149)

This also implies that the idea of informality in southern cities is much more complex and arbitrary than is generally anticipated. Thus, the urban infrastructure and network in the global South should be understood as an ever-shifting, mercurial relationship between formal and informal, legal and illegal, authorised and unauthorised, privatised and nationalised (Roy, 2009).

The informal construction and extension of infrastructure often involve incremental strategies (see Silver, 2014). The practice of incrementalism is the prevalent norm in megacities in the global South, largely due to the scarcity of resources, finance and planning. For Silver (2014, p. 788), examining informal construction and extension of infrastructure through incrementalism is a new approach to analyse post-colonial urban systems. Urbanites gradually keep adding a little bit at a time to built environments, livelihoods and social networks (Simone, 2015, p. 24). The gradual effort is made in terms of financial investments, savings, and decision making to start or supplement an existing network or infrastructure, instead of making or remaking it at once. This process often requires flexibility and constant adjustments and changes to decision making and planning. The gradual or incremental practice initiates fluidity and scope for improvisation, both in the process of building and rebuilding or repairing infrastructures (Simone, 2015). Silver (2014) suggests that the incremental practice is used by

the urbanites in Accra, Ghana, to rework the connection of electricity and building or rebuilding the living space/house. Configuring or reconfiguring informal, incremental infrastructure and networks is a “self-help” process. Self-help refers to “housing where the owner-occupier constructs some or all of the accommodation, with or without (professional) help” (Lombard, 2014, p. 8). For instance, the installation of IPS for alternative power supply is an incremental informality. It is a self-financed and self-laboured informal system. Installation requires rewiring and rearrangement of existing connections. Thus, the entire process of setting up an informal, alternative arrangement for electricity is a form of what has been described by Morley (2012), Lombard (2014) and Simone (2015) as self-help.

As Silver (2014, p. 795) suggests, incrementalism is used to address “energy poverty” by the marginalised, low-income neighbourhoods of the global South. Following Silver (2014), I suggest a refinement by arguing that incremental strategies are often used by the affluent middle class as well, to get access to everyday comfort and convenience beyond reconfiguring electricity by installing IPS in the households. The middle-class uses incremental strategies to reconfigure their domestic space by constantly installing and upgrading heating and cooling systems in their households to improve living conditions. In middle-class Bangladeshi households, the provisioning for heating and cooling systems is often not standardised and preconditioned like its Northern equivalents. The housing rather loosely epitomises an unequal condition and access to resources and possibilities, while at the same time is open to improvement and upgrading. For example, one of my participants, Mr. Rahman, noted: “... be it a rental apartment or own house, the heating or cooling systems are usually not built-in in the households in our country. We keep adding and working around to improve our living conditions as our financial capacity increases”. Mr. Rahman further stated that he gradually kept adopting and accommodating technologies such as geyser air-conditioning as his family income increases. Mr. Rahman’s statements thoroughly capture Silver’s (2014, p. 788) conceptualisation of incrementalism: “Incremental infrastructures can thus be understood as in-the-making, undergoing constant adjustment and intervention, and in a permanent state of flux”. Mr. Rahman’s statement mirrors and positions the households as a site and project “in-the-making”. It also reflects the fact that even the affluent middle-class from the global South often do not have access to a preformed, rationalised and standardised infrastructure and networks, which is the norm for the global North (see Graham & Marvin, 2001). Rather, in the south, people often have access to a customised, gradually-built, fragmented and informal

household infrastructure, which constantly gets updated and upgraded as the financial capacity increases.

Middle-class' attempts to privatise everyday comfort is thoroughly captured in Mr. Rahman's comments as he suggests how incrementalism and informalities are employed to secure thermal comfort in the households. In this case, Shove's (2003) argument on social construction and normalisation of thermal comfort would be useful to recall. For Shove (2003), the desire and need of indoor and environment comfort are increasingly becoming global, regardless of different natural environments and climates in different parts of the world. There is a common expectation of manipulating the indoor temperature by using artificial heating or cooling systems and reproducing and maintaining it to 20 to 22 degrees Celsius, irrespective of the natural tropical or arctic outdoor climate. The notion of "comfort" has changed worldwide over the years, and there is now a technical standard and conditions of indoor thermal comfort that is established by market-driven science and engineering (Shove, 2003). The anecdotes of my respondents suggest that the middle-class households desire to subscribe to the realm of a technically standardised and normalised idea of comfort by installing self-financed, self-helped heating, cooling and cleaning systems.

The middle-class desire to install personal heating, cooling and washing systems suggest the symbolic significance of infrastructure and technology. In addition to the obvious material comfort that they bring, there is a palpable and conspicuous pride and satisfaction seen in my participants' responses about the personalised, self-financed configuration of such amenities and facilities. My participants' responses highlight how infrastructure can be a symbol of aspiration, progress, modernity, development, hope, power and wealth. In this respect, Anand (2012) argues, "Infrastructures are also compelling sites to study aspiration... They are material networks that allow us to live, to dream and to desire". Beyond its materiality and functionality, technology and infrastructure both symbolise and transmit the meaning produced by its users. This production and imposition of meaning are described as a phase of conversion in the theory of domestication (Haddon, 2006; Juntunen, 2014). Conversion involves how technologies and its meanings are displayed and conveyed to communicate with other social networks such as friends, neighbours, and colleagues (Bakardjieva, 2011; Kadi, 2013). In this case, self-configured and self-financed infrastructure such as personal heating, cooling and washing systems symbolise class status, power, and wealth. Informal infrastructure and self-organisation have been turned into a marker of class distinction and status in Bangladeshi

households, which Roy and AlSayyad (2004) would have described as “elite informality” or, “high-end informality”, which often ends up reproducing and fortifying the privileges of the urban elite (Pow, 2017). For my research, however, it is emblematic of middle-classness. My participants expressed the gratification for their ability to self-configure the access to infrastructure.

4.3 A Landscape of Improvised Infrastructure

The discussion thus far undermines and challenges the long-standing dominant ways of comprehending infrastructure as a “black-box”, as an “internally unproblematic” (Graham and Marvin, 2001, p. 21) set of arrangements; the “non-social domain of technological experts”, which tends to neglect the social organisation of technology and infrastructure (Wynne, 1988, p. 149). The new genres of writing underscore the ever-evolving nature and social organisation of technology and infrastructure (Graham & Marvin, 2001; Simone, 2004; Amin, 2014; Silver, 2014; Graham & McFarlane, 2015). It highlights how technology and infrastructure develop, change and adapt to people’s changing needs and desires because people adopt them to these ends (see Larkin, 2008). It grows and evolves with ad-hoc adaptation to meet specific local needs and situations (see Wynne, 1988). Technology and infrastructure are, thus, not always rule-bound; rather, it is flexible, unpredictable (Wynne, 1988), and prone to breakdowns (Graham & Thrift 2007). The practices of technology are in flux, adapted and adjusted to its context.

Though technology requires some generalised rules and functional traits for its reproducibility and transportability, it is equally important to illuminate its context-specific practices. For Wynne (1988, p.147), “technologies should be conceptualised as extensive, open-ended socio-technical systems whose local behaviour is underdetermined by any overall rationality”. This notes the significance of understanding contextual behaviour and practices of technology. This section of the chapter focuses on the local ways of using infrastructure and technology in the middle-class households. The section delineates the concocted and reworked infrastructural practices - how the practice of improvisation leads to innovations and the adoption of a new set of technologies. It also highlights how infrastructural disruptions and attempts to “make-do” often shatter the idea of “black-boxing” (Luque-Ayala & Marvin, 2016). Black-boxing

refers to the invisibility of infrastructure and technology (Luque-Ayala & Marvin, 2016, p. 195- 196).

In the global South, cities are a combination of disconnected “circulatory processes”, and a place of “intermingling and improvising” (Mbembe & Nuttal, 2004, p. 369). The politics of everyday urban life is played out through unequal struggles to improvise and get hold of basic resources such as power, water, transportation and communication. These services hardly reach the level of reliability that would allow them to be taken for granted (Graham, 2010). People wait or improvise to gain control of basic utilities and resources to function in everyday life (Howe et al., 2016). Luque-Ayala & Marvin (2016) argue, “... in the global South, a large segment of the population experience infrastructures in a permanent state of disrepair and improvisation” (p.196). For Morley (2012, p. 93-95), in global South megacities, people live in thoroughly privatised worlds of technological improvisation where survival strategies are based around fragile but flexible local networks.

Improvisation is often linked to frugal innovations (Radjou, Prabhu & Ahuja, 2012). Different forms of impromptu innovation are practiced in different countries in the global South. For instance, the practices and principles of *Jugaad* in India, *Shanzhai* in China, or *Microfinance* in Bangladesh epitomise impromptu innovation, adjustment and improvisation as a way to overcome structural and infrastructural deficits and the scarcity of resources (see Ferdousi, 2015). *Jugaad* is an Indian colloquial term that implies a quick fix or self-repair with available resources to provide a solution to a given problem including infrastructural failure (Birtchell, 2011). Harsh climate and scarcity of resources trigger frugal engineering as a self-preserving instinct (Rej, 2013). However, this practice of self-preservation is no longer limited to the global South. The impromptu innovation has garnered attention from Northern academia and businesses considering the future possible constraints in the economy, environment, and resources (see Radjou, Prabhu & Ahuja, 2012; Zeschky et al., 2014). For Jeffrey (2009, p. 205), *Jugaad* is an entrepreneurial skill that is strategically employed by various social classes. Drawing on Jeffrey’s (2009) analysis, Roy (2011) contends that *Jugaad* is a strategic move from the bottom that has been adopted and employed by different social classes in various different ways.

The practice of frugal engineering offers a cost-effective, fast and alternative solution to many everyday problems and issues (see Ferdousi, 2015). The recent invention of an air-conditioning unit with old plastic bottles is such an example of unscripted, and off-hand innovation, which offers a cost-effective, eco-friendly solution to summer heat and humidity for low-income people (Distasio, 2016). The cooler does not need electricity for operation. Thus, it is named an “Eco Cooler”. The mechanism of the Eco Cooler is very simple and based on the basic theorem, widely known as the Joule-Thompson effect in physics, which explains how gas cools on quick expansion. The air cooler is capable of reducing the air temperature by up to 5 degrees Celsius. “A board is cut to fit the desired window, and bottleneck-sized holes are cut out in a grid pattern. The bottoms of empty plastic bottles are cut off and discarded, leaving funnel-shaped bottlenecks that are placed on the grid” (Distasio, 2016, p. 3). While installing the air-conditioning unit/board on the window, the wider part of the bottles faces outward so that it grabs the passing wind to funnel cool air into the house (Distasio, 2016). This low-cost, eco-friendly and effective invention has already been funded by some social business initiatives, such as Grey Group and Grameen Intel Social, to help people learn about and install it in their homes. These companies have helped to install the Eco Cooler in 25,000 households in Bangladesh since February 2016 (France 24, The Observers, 2016).



Figure 4: Eco-Cooler: An Example of the Frugal Innovation

Source: Photos retrieved from <https://inhabitat.com/this-amazing-bangladeshi-air-cooler-is-made-from-plastic-bottles-and-uses-no-electricity/>

Though the Eco Cooler was primarily invented and designed to offer the poor and lower class a cost-effective solution for cooling in the sweltering summer heat, it might also be useful for the middle-classes in both the North and the South. The amount of required energy and fuel for artificial indoor cooling in the fastest growing cities is alarming (Shove, 2003). This zero-energy air-conditioning unit might provide a globally sustainable solution to the socially constructed idea of “everyday comfort”, which is often criticised as an “unsustainable way of life” (Shove, 2003, p.3). Thus, the frugal novelty of the global South, such as the Eco Cooler, might be the future of the North, rather than the North being the future of the South’s megacities.

In this case, it is worth recalling Koolhaas’s (2004) work in a Harvard Project on the City, which has been rendered into a book called Mutations. Looking at the inventiveness of the slum residences and their self-organisation and generation of alternatives, Koolhaas notes that the Nigerian metropolitan areas such as Lagos are not developing in conventional ways to fit into the Northern standard and definition of “city”. Koolhaas (2004) was amazed by the existing productivity, energy and exuberance of the city despite the lack of those infrastructures, systems and amenities that defines the word “city” in the Northern planning and methodology. In Koolhaas’s (2004, p. 652) words, “Lagos, as an icon of West African urbanity, inverts every essential characteristic of the so-called modern city. Yet, it is still - for lack of a better word - a city; and one that works”. In explaining the logic of the material conditions and development of Lagos, Koolhaas (2004) notes:

The material logic of Lagos is convincing. We are resisting the notion that Lagos represents an African city en route to becoming modern. Or, in a more politically correct idiom, that it is becoming modern in a valid “African” way. Rather, we think it possible to argue that Lagos represents a developed, extreme, paradigmatic case-study of a city at the forefront of globalising modernity. This is to say that Lagos is not catching up with us. Rather, we may be catching up with Lagos. (p. 652)

Drawing on Koolhaas's (2004) work, Morley (2012, p. 94) also suggests that the cities in the global South are not heading toward modernity in the conventional (Western) Northern sense, these cities, rather, often embody the future possible conditions of the North. The future that might involve inclining to self-organisation and improvisation to combat future possible and increased infrastructural failure.

As Graham (2010) suggests, getting electricity, water or communication requires constant improvisation for the city dwellers of the global South. The idea of having an IPS or an alternative power supply does not end the problem; rather, it triggers a set of diverse improvisational strategies such as rationing and prioritising needs. This is because the battery of an IPS has a limited capacity for certain hours of backup. A 500-watt and 12-volt battery of IPS provides two hours' backup for three tube lights, three electric fans, and one television, or an alternate combination (RahimafroozIPS, 2016).

Households seek to maximise the backup time and the longevity of the battery. For instance, activities such as children's education, the physical well-being of children and the elderly get priority over recreational activities in terms of IPS power. The power from IPS is mostly used to secure the uninterrupted operation of lights and fans in the household so that the children can continue their study in the evening as well as prevent discomfort and illness from extreme summer heat and humidity. One of my participants, Mrs. Sultana, noted:

I always prioritise children's needs and their study when it comes to consumption of electricity from an alternative source. As you know... the machine (IPS) has a certain capacity for supplying power. We usually get most affected by load shedding during summer evenings between 6 to 11 o'clock as it is the peak hours. Ironically, this is the time when children usually study. So, I have to ensure their uninterrupted study.

She further added:

I avoid watching TV or doing any other leisure activities to maximise the backup hours of the IPS so that the children can study uninterruptedly. I also try to limit the number of lights and fans when it operates on IPS. For example, if the children are studying in one room, I would like to have rest of the members to be sited or work in the next single room rather than being in different rooms and consuming power from different points of access in the home.

The invisibility and stability of the infrastructure are often shattered on breakdown or failure of an infrastructure (Leigh-Star, 1999; Graham, 2010). Infrastructural disruption and breakdowns thus initiate the process of un-black boxing (Graham & Thrift, 2007; Luque-Ayala & Marvin, 2016). Urbanites become more conscious and knowledgeable about functionality and construction of infrastructure, which eventually helps them to cope with and respond to infrastructural breakdowns in an efficient way. The adoption of a voltage stabiliser device could be seen as an improvisational strategy, which perhaps un-black boxed the supply of electricity by demonstrating the importance of a stable voltage for the households. For example, one of my participants, Mr. Kabir, noted that their television and refrigerator were damaged due to the sudden increase of voltage, which made them decide to purchase a voltage stabiliser. He noted:

The voltage fluctuation is a common problem, especially during the summer. In one summer day, we had regular load shedding. When the power resumed in the home the voltage was so high that my TV and refrigerator were damaged in one go. It was a good lesson for all of us in the house. After that incident, we turned off or unplugged all possible domestic gadgets and devices soon after the power cut. We turned them on again after the power resumed and felt stable. And finally, now I have a voltage stabiliser, which protects my gadgets from burning or damaging due to the fluctuation of voltage.

He further stated:

Honestly speaking, I was not aware of the voltage issue and how it might cause damage to electric appliances or dramatically shorten the life of your gadgets before I lost my TV and refrigerator. Now I know that a dramatic increase or decrease of voltage may burn or damage the internal circuit of your electronic gadgets.



Figure 5: Voltage Stabiliser

Source: Retrieved from <http://www.familyneeds.net/category/voltage-stabilizer/>

As suggested by Graham and Thrift (2007, p. 5), infrastructural failure or disruption often triggers the invention of new solutions, and the solutions or improvisational strategies often lead to innovations. For example, improvisational and coping strategies with black-outs ultimately led to the invention and use of technologies that have battery back-up, such as charger lights and fans that allows people to get hold of alternative lighting and cooling systems when there is a power failure. These charger lights and fans are a low-cost alternative to IPS, and provide the households with lighting and cooling for a few hours during power cuts. Due to frequent power cuts, battery-sourced technologies are useful and play an important part in the everyday domesticity of the middle-class. Hence, urbanites often prefer to own devices such as laptops and tablets over desktops. For instance, Mr. Hasan, a young banker, reported: “I prefer a laptop over desktop not only due to its portability but also for its battery backup. Battery backup devices are very handy in our country if you consider interrupted power supply. It allows me to continue my work even when there is a load shedding”. Mr. Hasan’s statement is evidence of how infrastructural disruption, such as power cuts, influences adoptions and appropriation of certain technologies over the others.



Figure 6: Charger Fan and Charger Light

Source: Retrieved from <http://www.familyneeds.net/category/charger-fans/>

Further, with an aim to combat disrupted infrastructure and the self-generation of comfort and conveniences in everyday life, a new set of technologies and devices are domesticated in the middle-class households. This implies that infrastructural disruptions facilitate the processes of domestication (see Silverstone, 2005) of a wide range of technologies including voltage stabilisers, and battery-sourced fans, lights, and instant power supply units in the households to combat infrastructural disruptions by functioning in alternative ways. The processes of domestication of these new sets of technologies illuminate the phase of objectification and incorporation. The accommodation of these technologies often requires restructuring of the space, such as arranging new power sockets or rewiring the connection in households, which suggests the phase of objectification. At the same time, the attempt to employ rationing strategies and prioritising needs could be seen as what Silverstone, Hirsch, and Morley (1992) describe as the incorporation of technology into the daily routine of households.

The economic liberalisation has changed the infrastructural landscape by unbundling the networks. Under neoliberalism, privatisation and new innovations, infrastructuring are no longer monopolistic, standardised and integrated. It is, rather, fragmented and more complex. Basic infrastructure and amenities are provided by a number of different public and private organisations. As Graham and Marvin (2001) argue, it has challenged the established assumption of integrated networks and cities as well as the conventional technical assumption that infrastructure has to be provided by public monopolies. The economic liberalisation also has an impact on fostering new technological innovations. The innovation by the corporations

“supported the development of appropriate technologies which have facilitated low-cost infrastructure supply options” (Graham & Marvin, 2001, p. 140). The introduction and adoption of technologies such as IPS, voltage stabilisers, charger fans, and lights could be seen as examples of such infrastructural facilities. As noted earlier, IPS was introduced by RAHIMAFROOJ Bangladesh Ltd. during the 1990s to address the problem of sporadic power supply from the national grid. The company also has an investment in the energy sector of Bangladesh and takes pride in the innovation of IPS. The company website claims: “With the increase in purchasing power of the mass and the power scenario ground reality has become a necessity. RAHIMAFROOZ IPS are an undisputed leader under IPS category with low initial cost, low regular maintenance cost” (RAHIMAFROOJ, 2016). With the technical and institutional support, the users of these low-cost, privatised amenities get enrolled and integrated “on to community infrastructure networks, challenging the traditional assumption that the new users have to connect to formal public or private infrastructure networks” (Graham & Marvin, 2001, p. 140).

4.4 Domestication of a Water Filter: The Self-Organised Alternatives to Safe Drinking Water

This section narrates and unpacks a case study of domestication and appropriation of a water filter by one of the participatory households. The anecdotes reflect the complex, entangled nature of urban infrastructure such as water provisioning, and how it is self-configured by the middle-class urbanites or dwellings. The narratives also assert that infrastructure and technology should be understood as an assemblage of human and non-human interactions (Latour, 1988, 1992; Sørensen, 2005; Button, 2014).

Water supply in major metropolitan areas is often inadequate and uneven, leading to shortages and inequalities. The site of this study, metropolitan Rajshahi, is not an exception in this case. The water for everyday usage is supplied from different sources through a range of different provisioning, including the municipality controlled city-wide main water supply, the community tube wells and pump wells, portable water tankers, and bottle-filtered water. Water in middle-class households, thus, cannot be considered as taken for granted. Rather, it is an everyday issue. The configuration of a constant water supply, particularly the access to a safe drinking water provisioning, is “a socially enacted performance”, which requires constant

“effort, maintenance, management and building-level infrastructure made easier by careful planning, new technologies” (Button, 2014, p. 86). This social performance for securing the supply of safe drinking water in the household is partially depicted in my participant, Mrs. Nahar’s anecdotes. She stated:

I bought the water filter because my maid is reluctant to fetch water. She threatened me that she will leave the job if she has to carry drinking water from the community tube well to my house.³

My maid asked me to find and hire another person who will only fetch water and she will continue doing the rest of the other household tasks that she is assigned to do. She said that she does not want to leave the job but she cannot fetch water as she has grown a hip pain. I understand... It is a tough job... However, I had no choice but to hire a poor local boy for fetching the drinking water from community tube well.

Since the supplied piped water is not often considered as safe to drink, it is one of the key duties of the domestic maids to fetch water from community tube wells. The task is extremely physically demanding. The absence of a paid domestic help or the maid’s reluctance to fetch drinking water created disruptions for the everyday functioning of middle-class households. To solve this problem, Mrs. Nahar sought several alternatives, such as hiring a young local boy to fetch drinking water from community tube well and getting a home delivery of bottle-filtered water from a small local business. She stated that the young boy she hired for fetching water was unreliable and irregular in his task. She added: “soon I realised that hiring a boy is not a good solution to this problem. The boy is young and he has a hundred other things to do. He was very irregular and lethargic; never on time”. She said that almost every night she had a dispute over this issue of water fetching with her husband. She said:

It was really an awful and difficult situation... I had to ask him to fetch some water after he comes back from work in the evening as the hired boy missed it today...

³ The groundwater is the main source of safe drinking water in Bangladesh. In cities, either the municipality corporations or the autonomous body of Water Supply & Sewerage Authority (WASA) is authorised for water supply to the residential areas. Rajshahi WASA supplies untreated and treated groundwater to households, which is reserved in the apartment’s/ house’s own reserve tank. The water is then supplied to household’s plumbing using a water pump. Due to lack of proper maintenance, leakage and contamination issues, the supplied water by WASA in some areas is still not considered as safe to drink straight from the tap. Thus, the groundwater, extracted from the community tube wells, which include hand-pump tube wells, deep-set tube wells and deep tube wells, are largely seen as the major sources of safe drinking water in urban Bangladesh.

because I cannot go... it is not culturally appropriate or respectful for me to do.⁴ I know that it was not easy for him either. He used to be really tired after his daylong work... I was really frustrated... fetching the drinking water became a big issue in my household. I used to fight and argue almost every night to my husband over this issue...

Mrs. Nahar, however, further said that she tried getting a delivery of filtered, bottled drinking water in a giant container from a local business, which eventually did not work out for the household either. After a couple of months of the trial, she realised that it is not a suitable solution as she explained that the delivery man comes to deliver the water at a certain time and someone has to be in the house to receive it. The delivery time used to clash with the timing of picking her children up from school. Mrs. Nahar finally found the solution to the problem in buying a water filter. As she said:

Finally, we decided to purchase a water filter. After a long research and consultation, we bought a water filter, which does not require any electricity or power to function. It is so easy and handy. The only thing I need to do is replacing the medicine unit of the filter after every six months. And I am really satisfied with its performance. Things have become so easy. I do not have to worry about fetching water anymore. I filter the tap water now and drink it.



Figure 7: Water filter

Source: Retrieved from <http://www.familyneeds.net/category/water-filter/>

⁴ There are cultural taboo and social stigma around middle-class married women fetching water from the public/community tube wells in Bangladesh. It is seen as disrespectful for middle-class women.

Following Mrs. Nahar's narratives, it can be argued that the provisioning of and access to drinking water in the middle-class households are figured and refigured in various different ways including the main water supply, filtering the tap water, the water from tube wells and pump wells, bottled water and so on. It stresses the complexities and entanglement of several different provisioning and ways of configuring and securing infrastructure and basic amenities in everyday life, as opposed to the standardised, rationalised constant supply of tap water for drinking in the Northern households (see Graham & Marvin, 2001; Button, 2014).

The domestication of the water filter has a different implication too. It can be comprehended as an example of how the unreliable human actions are replaced by a nonhuman/technology (see Latour, 1988, 1992). Technology often substitutes human actions and efforts; it often replaces undisciplined and unreliable human actors (Latour, 1988, p. 299-301). Similarly, substitution of unfaithful and undisciplined human action is comprehended in Mrs. Nahar's story of the adoption of a water filter. The unreliable human actors involved in the delivery of water (e.g. by a domestic maid, the hired local young boy, the delivery man from a local business) was replaced by the water filter. This shows how technology finds its way to the household.

4.5 Chapter Summary

Everyday urban life is mediated through infrastructural complexities (Graham & McFarlane, 2015). In particular, urban life in Bangladesh encompasses routine infrastructural disruptions such as power cuts, plumbing issues, and so on. Urbanites generate their own improvised ways for surviving and coping with regular infrastructural failure. The improvisation often leads to frugal innovations, creativity, and the usage of new, alternative self-organised arrangements such as IPS. The installation and usage of IPS further initiate a set of improvisational strategies and adjustments including rewiring the connections, and rationing or prioritising needs for power consumption within households. The splintered, disrupted and uneven infrastructure facilitates the innovation, adoption, and integration of a new set of technologies such as IPS, voltage stabilisers, charger lights, and fans. Uneven infrastructure thus, surprisingly, turned middle-class households into a technology-rich landscape.

The analysis of informal, improvised and self-configured infrastructure in this chapter defies the claim of the dominant urban theory which perceives informality as a mere response from the poor to survive. My investigation shows that it is often used by the privileged to imply their social status, wealth, and power. This practice of elite informality reinforces and solidifies the privileges of the middle-class (Roy & AlSayyad, 2004). I regard this reinforcement of privileges as the expression of middle-classness. Thus, informal, contrived, and self-help infrastructure are not exceptions or a deficit model; they are rather norms, an integral part of urban dwelling practices in the global South (Roy, 2009; Silver, 2014). These are the central strategies and devices for urban infrastructural policies, planning, and theorising.

An investigation of everyday practices of urban infrastructure and sociotechnicality of Bangladesh reveals a context-specific narrative of cities and urban life in the global South, which offers a “reimagining of cities” (Edensor & Jayne, 2012, p. 1) or, “alternative urban imagery” (Silver, 2014, p. 800), as I discussed in Chapter 2. There is a new emphasis on reimagining the geography of authoritative knowledge and production of theory. Vanessa Watson (2008, p. 2259), for instance, urges “seeing from the South”. Watson (2008, p. 2259) argues that “a perspective from the global South can be useful in unsettling taken-for-granted assumptions about how planning addresses these issues”. Thus, the reimagination of urban sociomateriality might be useful for the North in the future to respond to growing infrastructural problems, poverty, and inequality (Watson, 2008).

Further, the informal and improvised infrastructure might turn out to be the future for global North as well. As Byrd and Matthewman (2014) argue, the Northern assumption of a stable infrastructure will be increasingly challenged in the near future due to issues such as climate change, insufficient supply of fossil fuel, and infrastructural neglect. The vulnerability of power and electricity infrastructure, in particular, will increase in coming decades (Byrd & Matthewman, 2014). If this happens, the irregular infrastructure which is currently the norm for the South might turn out as the *new normal* for the North and the North might have to emulate and rely on the South’s current practices of improvised, informal and self-help infrastructure.

Chapter 5

Intergenerational Politics of Everyday Technologies

5.1 Chapter Overview

My investigation of the use of everyday technology in middle-class households in Bangladesh operationalises what I have called a “soft-relativism”. By soft relativism, I mean the process of domestication is neither exclusively globally determined nor locally contingent. Soft relativism is played within the intergenerational relationships of the sorts of households I have studied in terms of the interplay between transnational beliefs and aspirations around child development and parenting practices, and local notions of guardianship/*obhibhabokotto* (White, 2007). Social class and aspirations are crucial, and in this respect, the middle-class families I have explored look more like a generic middle-class of the global North than they do working class or poor Bangladesh families living only streets away.

This chapter engages in the exploration of intergenerational - parent-children - politics over the use of domestic technologies, particularly ICTs such as computers, the Internet, mobile phones, and television. As stated in Chapter 2, the chapter reflects on local ideas and social institutions of guardianship/*obhibhabokotto* (White, 2007), *manush kora* (White, 2007) – “the accountable task of childbearing” (Spivak, 2000, p. 15), parents’ obligations and the responsibility to socialise children, and children’s autonomy. This is because an analysis of adoption, integration, and management of domestic technologies often requires a focus on issues such as “the dilemmas of parenting, the project of bringing up children in accordance with parental aspirations, values, interest, and skills” (Livingstone, 2007b, p. 923). Besides illuminating a context-specific and (soft) relativist understanding of age/generational-technology dynamics, a focus on local social institutions and practices also allows this chapter to unsettle the Northern presumption, which has been described by White (2007, p. 505) as “a grim picture of the lives of Bangladeshi children”, as stated in Chapter 2.

The first section of the chapter reflects on a number of issues such as parenting, childhood, and parents' perception and assessment of childhood risks in the middle-class households. The following section discusses different regulations and parenting strategies to limit children's consumption of digital technologies and to promote a safe digital environment for children. The remainder of the chapter examines children's perceptions and strategic responses to parental regulations and censorship. It also reflects on how children often use their ICT skills and knowledge as a "bargaining chip" to claim autonomy and evade parental regulations.

5.2 Parenting and Childhood

This section of the chapter discusses parental obligations; the dilemma of rulemaking for children to regulate their usage of ICTs to protect them from pernicious effects of it. The section first discusses how childhood, children, and parenting are socially constructed ideas and often change from one context to the other. It then reflects on a range of contemporary issues that modern urban parents encounter in raising children, such as insufficient parental engagement with children, the scanty leisure and recreational activities for children, and the sense of outdoor and indoor risks for children, which is notably marked as the elements of a "risk society"- modern industrial capitalism has generated a multiplicity of risks and danger (see Giddens, 1990, 1991; Beck, 1992). The remainder of the section focuses on how parental regulation and censorship is often dependent on parents' assessment of potential risks for children.

5.2.1 Construction of Childhood, Parenting, and Risks

Childhood is socially constructed. The modern attribution of "specialness" to children is central to this construction (Jackson & Scott, 1999, p. 86). Children are considered as unique, and vulnerable, and childhood is often marked as a specific state of being. Social constructionism critiques the traditional idea of childhood as a homogenising, standardised, biologically-driven natural phenomenon. The premise for such theorisation is a Northern model, which perceives childhood as a phase of physical and mental growth of human beings that is assumed to be universal (Myers, 2001). For Boyden (1997), a Northern urban middle-class concept of childhood has been promoted worldwide as a standardised universal model to apply to all societies. Instead, the relatively new social constructionist approach is a flexible and inclusive

one, which recognises cultural divergences and variations in practising and understanding childhood as well as parenthood (see Burman, 1996; Boyden 1997, 2003; James & James, 2001). This approach considers that the child is not a universal category and childhood is not one, it is rather many. There is plurality and fragmentation in childhood experiences (de Almeida et al., 2011; Prout, 2011). The social constructionist perspective of childhood, thus, is a contextualist, relativist approach, which is useful in comprehending issues such as children's socio-economic roles and autonomy, and parenting obligations in the contexts of Bangladesh.

The idea of childhood, parenting, children's socialisation and roles are even variant across the class structures (i.e. poor or lower-class, middle-class) and geographies (i.e. rural and urban areas). For example, the conception of childhood, children's maturity and socialisation in an urban middle-class Bangladeshi dwelling are relatively analogous to its Northern equivalents. Myers (2001) argues that children in the global South usually gain the status of adulthood as soon as they reach puberty. In these societies, children are often raised with an expectation of them playing a mature role by adolescence, and they turn into an active participant in economic activities and family livelihood. On the contrary, in Northern society, childhood is sharply separated from adulthood by keeping children dependent and discouraging their participation in certain adult responsibilities and concerns such as economic maintenance of the family (Myers, 2001). Myers (2001) notes that this practice and perception of children and childhood is very persistent in the middle-class of the global South as well. Southern middle-class households loosely resemble the Northern model of conceiving children as vulnerable, incompetent biological entities (Myers, 2001) who should be protected by adults, more precisely by their parents. This resemblance illuminates the transnational natures of the Bangladeshi middle-class lifestyles and also justifies the soft relativist position of this research, as described in Chapter 2.

Drawing on Myers (2001), I suggest that the idea of childhood, children's expected socioeconomic roles, and autonomy significantly vary depending on the class structures in the global South. By this, I mean that the idea of children's roles and agency in the rural, poor households sharply contrast with the urban middle-class households in Bangladesh. The middle-class children are relatively more protected and regulated than the rural poor or lower-class children. As White (2007) suggests, in Bangladesh, the principal obligation of guardians or parents is *manush kora* - socialisation of children, which involves providing material and moral resources to children. Regulating children's behaviours and activities and protecting

them from possible harm and violence is an integral part of the process of socialisation. In other words, setting rules for children to protect them from potential risks is an important part of parenthood.

Establishing rules for regulating children's exposure to digital technologies is a challenging task (Livingstone, 2003; Mascheroni, 2014). It is seen as a dilemma for parents: where is the boundary when it comes to children's use of Information Communication Technologies (Clark, 2011)? On the one hand, parents cannot ignore the potential educational value of computers and the Internet; on the other hand, they are concerned about the possible loss of children's traditional skills, values and norms caused by ICTs (see Livingstone, 2003; Lim, 2008; Tripp, 2010; Sekarasih, 2016). Parents are often "torn between a belief in the educational value of the Internet and a strong sense of anxiety about online risks" (Tripp, 2010, p. 552). What might children access and how might it affect them? There are increasing pressures on parents from different stakeholders such as government, nongovernment organisations, and policymakers for greater monitoring and control regarding children's use of media technologies and the Internet (Haddon, 2015). Conflict may also come from the struggle over negotiations between parents' authority and children's autonomy (see Haddon, 2012; Haddon, 2015), and parents' contradictory stance of using digital technologies as supervisory or babysitting arrangements for various reasons (Livingstone, 2007a; Clark, 2012).

Parents quintessentially construct ICTs as resources for education and career development, while children tend to turn them into gaming machines or tools for socialising (Green, Holloway & Haddon, 2013). Despite parents' attempt to articulate and establish ICTs as resources for education and learning, digital technologies are often used as sources of entertainment or *time fillers* when parents are occupied (Livingstone et al., 2014). For Clark (2012), middle-class parents tend to work long hours to avoid economic crisis and maintain a decent lifestyle, which has been making parental engagement with children increasingly difficult. Often this manifests around issues of "quality time". Parents' extended working hours and lifestyle have significantly reduced the time for parental supervision and engagement with children. Thus, parents have to rely on a range of different "supervising and engaging" arrangements for children while they work for longer hours (Clark, 2012, p. 11). The arrangements include children's use of ICTs, such as mobiles, tablets, computers and video games, when parents are engaged either in the household tasks or office work. This tension of parents' reduced supervision and involvement with children was captured in some of my

participants' narratives. For example, Mrs. Akhtar, a banker and a mother of 8 and 10-year-old sons, reported:

I am exhausted and tired when I return home from work after long busy hours. I do not feel like to talk to anyone at that moment. The kids see me after long hours... they want to tell me their stories, about their friends, schools... they have lots of questions and curiosities; in a nutshell, they want my attention... I understand that... But often, after asking few basic questions such as, if they have eaten, or have done the homework, I have to tell them that I am too tired, I need rest; I will cook dinner for them ... the kids then ask me what they should do? They are done with their homework. In exhaustion, sometimes I say, "go and watch TV" or, "play video games"... It is so wrong for me to say something like that... I know... But what to do?

Challenges for parental regulations for children's use of digital technologies also come from rapid changes in urban life and the sense of childhood risk. Parental concerns regarding childhood risks shape children's leisure activities and spaces (Ennew, 1994; James et al., 1998; Livingstone, 2007a; Clark, 2012). In Bangladesh, these concerns involve the threats of abduction, child trafficking, sexual harassment, and drug abuse (Biplob, 2011; Billah, 2015, Khan, 2015; Shamim, 2017). These potential outdoor risks have pushed children inside the home. Leisure is increasingly domesticated. Parents noted that the sense of outdoor risk for children as well as the intervention of digital media and technologies have transformed the idea of childhood. The majority of my parent participants reiterate this issue. For example, Mr. Huq noted:

My kids are sort of confined to the home after school hours as they do not go out or play outside. There is no spaces or playground for them to play. And then the outdoor risk is another issue. I do not feel safe allowing my kids to go outside alone. Hence, playing video games and watching TV are the only source of refreshment for them. In such circumstances, it is a challenge for parents to restrict and regulate children's use of ICTs.

Mr. Azad said:

Sometimes I feel too guilty looking at my children's daily routine. There is no space and time for them to go outside and play outdoor games. When they are at home, they are stuck between the reading and computer desks. But, in our childhood, we used to participate in a lot of outdoor activities. There were a lot of free open space and playground that time. Moreover, the education was not this much competitive and strenuous that time. Now I feel like my kids have no childhood. They are already pushed into the rat race of having a good education and career.

I am also concerned about the outdoor safety of my children; I do not feel safe to allow my children to play outside or walk alone with friends. There are risks of abduction, and drug addiction. I remember that I used to go to school walking alone when I was a kid. But, I cannot think of allowing my kids to go to school alone. They are always accompanied by either my wife or me.

Further, Mr. Azad said:

I cannot blame my kids for spending time in playing video games or doing other fun stuff on the computer because there is no other source of entertainment available for them.

Recapitulating the narratives of my participants, women's participation in the labour force, a decline in multigenerational households, the issues of children's outdoor risks and the decline of children's entertainment have turned ICTs into alternative sources of entertainment, and sometimes the babysitter for urban middle-class children. Yet, parents feel the obligation to look after and regulate children's overexposure to digital technologies (Livingstone, 2007b; Clark, 2012; Haddon, 2015). They make attempts to ensure the productive, educational and limited use of ICTs by their children. To do so, parents employ a range of regulation strategies. The making of rules and regulations is reliant on parents' ability to assess the risks and identify the harmful contents for children.

5.2.2 Parent's Assessment of Risks

Parents' knowledge and competencies about ICTs and their effects on children determine the patterns of children's ICT use (Gentile & Walsh, 2002; de Almeida et al., 2011). This is because parents' understanding of ICTs influences their ability to identify potentially pernicious content, which subsequently determines the patterns and degrees of parental censorship of children (Livingstone, Mascheroni & Staksrud, 2015). Livingstone et al. (2015) suggest that for parents, digital and online technologies are more difficult to manage and censor compared with technologies such as a television for several reasons, including the complex nature of digital technologies and parents' failure to keep themselves updated with innovations and upgraded technologies. Thus, techno-savvy parents are more likely to use strategies such as installing filtering software or checking browsing history (Tripp, 2010; Livingstone, Mascheroni & Staksrud, 2015). While a small minority of my parent participants reported that they regularly check their children's browsing history, none of them were aware of filtering software or technology to restrain children from visiting certain web pages or content.

As I noted earlier, children are constructed as vulnerable, innocent and fragile and thus, need to be protected from potential harm, risk, and danger. Risk and anxiety, conversely, as stated by Jackson and Scott (1999, p. 86-87), shapes and influences childhood and maintains boundary-specific risks from which children should be protected to preserve the defined characteristics of childhood and the nature and behaviour of children themselves. One of these risks involves children encountering sexual acts, abuse, and content. Sexuality and childhood are considered and comprehended as “inimical” (Jackson & Scott, 1999, p. 87). This is because sexuality is understood as contradictory to the state of innocence, which is often one of the defining characteristics of a normal child. Sex and sexual content is thus preserved for adults and is often a marker of the entrance to adulthood (Jackson & Scott, 1999, p. 87). The restriction of sexual content to adults and the prevention of children from encountering such content has become a daunting task for parents these days due to children’s early introduction to digital technology and cyberspace. This anxiety is thoroughly mirrored in some of my parent participants’ comments.

Research on parental concerns and risk assessment suggests that parental anxieties about children’s use of ICTs are centred on issues such as encountering violence, sexual content, abusive language, cyberbullying or revealing personal information (see Valcke, 2010; Livingstone et al., 2014). For Livingstone et al. (2014, p. 4), “Encountering violence and strong language were of greater concern to parents than sexual content or unwanted contact”. The responses of my participants did not show this. They repeatedly voiced their concerns about children’s exposure to pornographic content and about the decline of academic performance due to long hours of engagement with ICTs. The parents were largely unconscious of the risks of encountering cyberbullying, abusive language, spam, phishing emails and children accidentally revealing personal information. This shows that parents’ perception and understanding of potentially harmful content for children is often very limited; parents often tend to underestimate the risk that children are exposed to in cyberspace, which in turn exemplifies parents’ limited access to and knowledge about modern ICTs (Livingstone & Bober, 2004). For example, my participant, Mrs. Akhtar’s statement shows how her assessment of digital risks is largely centred on children’s exposure to pornographic contents. She noted:

What do we mean by the appropriate use of technologies? Our main concern is if my kids are watching nude photos or if they are using technologies to watch blue films. That means we want to allow kids to do anything but watching sex and pornographic contents on the Internet, right...?

Another participant Mrs. Sultana reported:

My kids are very fond of the Discovery Channel. The channel has a lot of contents and programmes, which are educative and enlightening for the children. But there are contents which I have objections and restrictions as well... for example, the programme called “Naked and Afraid”... the programme shows the adventure and survival of forty days of wilderness... it shows the naked body of the survivalists. I do not want my kids to watch naked man on TV at this young age... it does not go with our values...

The EU Kids Online projects (Hasebrink et al., 2009) classified children’s online risks in three broad categories: 1) content risks - children as recipients of the media content, 2) contact risks - children as participants, and 3) conduct risks - children as actors. The parent informants of my study predominantly voiced their concern about children’s content and contact risks. The parents showed their awareness about the risk of children’s exposure to pornographic and sexual contents with a belief that this content will cause moral degradation in children (Rahayu & Lim, 2016). Further, my participants also recurrently expressed their concern regarding the conduct risk for children, such as a decline in academic performance, aggression, and seclusion of children due to over exposure to and engagement with digital contents.

The parental belief and concern of children’s moral degradation due to exposure to pornographic contents is linked to cultural values and norms. The parents made recurrent references to culture and cultural values to assess and identify inappropriate content for children. For example, the parents often made references such as, “this is not appropriate in our culture”, “our culture does not permit it”, and “children should not watch adult content as it is conflicting with our culture and values”. Though the religious beliefs and practices are part of the culture, no explicit reference was made by my participants about religion to identify the inappropriate contents or to codify their moral regulations. My field work experience contrasts with a recent study conducted in Indonesia (Rahayu & Lim, 2016). Rahayu and Lim (2016) suggest that Indonesian “mothers actively manage their children’s Internet consumption, and devise different mediation strategies to ensure that their children use the internet in ways that are congruent with Islamic principles” (Rahayu & Lim, 2016, p.46).

My findings resemble Karim’s (2012) observation in researching “Living sexualities: negotiating heteronormativity in middle-class Bangladesh”. Karim (2012, p. 70) noted how her anticipation of religion being the key issue in discussing sexuality and sexual orientation

proved wrong. She contends that though religion is an important part of the Bangladeshi middle-class identity, it is not central to it. Karim (2012) argues:

Religion is central to Bangladeshi peoples' lives, but the Bengali middle class has always prided itself as being 'liberal' and more affiliated with a practicing spiritual people rather than with fundamentalism. Religion is part of a middle-class Bangladeshi's identity, but it is not at the core of its identity politics. As such, cultural characteristics and elements often take priority over textbook religious prescriptions. (p. 72)

For Clark (2011), how parents assess the digital risks and establish rules to promote children's wellbeing is a difficult process to comprehend and explain. Clark (2012, p. 18) argues that the parents often make assessments and decisions in relation to their interest in promoting children's wellbeing and being a good parent, rather than rationally assessing the risks. Parental regulations and decision making should be understood in relation to a number of contextual factors (Clark, 2011). Similarly, my research observes that the parental awareness and assessment of risks and establishing rules and regulations are influenced by cultural values and norms. The parental concern and ability to identify potentially harmful content is largely centred on the notion of what is *culturally inappropriate*. Parents tend to believe that if the content conflicts with cultural norms and values, it will cause harm to their children. Thus, parents make routine references to cultural values, norms, and traditions when making and imposing regulations on children.

5.3 Regulation Strategies: Finding a Balance between Parental Warmth and Restriction

As already mentioned in Chapter 2, domestication of everyday technology involves an effort and attempt to discipline, control and tame the unknown and unsettled technology within the domestic realm (see Sørensen, 2005; Bertel, 2013). This disciplining and controlling involves making rules and norms for the users of technologies that define the frequency, duration, purpose, and orientation of its usages and consumptions. Regulating technology is thus linked with its placement within the spatiotemporality of households. Thus, rulemaking is a part of

what Silverstone, Hirsch, and Morley (1992) termed the objectification and incorporation of technology into everyday domestic life. Following the early proponents of domestication studies, Hynes (2005, p. 255) describes “objectification” as the decision of “where to locate” the technology and device, and “incorporation” as the “rules of use” - who, why and what it is used for. This section, thus, examines how parents enact and impose rules to regulate children’s use of, and exposure to ICTs, which in turn determines the objectification and incorporation or physical disposition and integration of those technologies within practices of domesticity.

Regulating children’s exposure to ICTs is a process and practice of negotiation between parental authority to protect children and children’s autonomy as agents to respond to parental regulations (see Prout & James, 1997; Clark, 2011; Haddon, 2015). When it comes to protecting children from virtual abuse, parents usually tend to employ two different categories of strategies: parental control and parental warmth (Valcke et al., 2010; Correa, 2014). This combination of strategies rests on the dual orientations of parenting and parental authority: responsiveness or involvement and strictness or control (see Nelson, 2010; Correa, 2014). This implies that parents often combine restrictions and punishments as well as affection and reward to protect children. While responsive parenting involves constant communication and negotiation with children to invest more time in relationships and bonding, restrictive notions involve prioritising and practising parental authority and rules over intimacy and conversations (Nelson, 2010). The local idea of guardianship or *obhivabokotto* also involves these two orientations or dimensions of parenting. As White (2007, p. 507) noted, the local idea of guardianship illuminates both the subordination and the adoration of children within Bangladeshi culture.

5.3.1 Restrictive Parenting and Children’s Delayed Access of Private Ownership

Parenting has a great influence on children’s use of ICTs (Valcke et al., 2010). For Nelson (2010, p. 119), “technology and parenting styles go hand in hand and mutually reinforce each other”. Parents are, however, seen to employ both parental warmth and control to regulate children’s usages of ICTs. There are traces of responsive as well as restrictive parenting within middle-class households. Restrictive parenting (Padilla-Walker & Coyne, 2011, p.705) involves several different strategies to regulate children’s use of ICTs, including physical monitoring, installing filter software, checking the history of Internet browsers, making rules

to determine the access time and duration as well as content of ICTs (Livingstone, 2007b; Valcke et al., 2010; Padilla-Walker & Coyne, 2011; Sekarasih, 2016).

Some of my participants noted using restrictive strategies such as checking the Internet browser history, using the child lock option on the television, or taking the Internet modem away when they are not at home. Besides these, parents reported that they tend to define the rules to limit children's exposure to harmful media content and restrict them from developing unhealthy media habits (Sekarasih, 2016). For example, Mrs. Saba noted that she had specified the duration and timing of digital engagement for her children; the children are only allowed to use the computer for two hours a day after completion of their homework and study. Besides highlighting the restrictive parenting strategies, the following responses of my participants also illuminate the incorporation phase of ICTs into the daily routine and structuring of everyday activities (Kadi, 2013):

When we (she and her husband) do not stay at home, we do not keep the Internet modem in the home. We take that with us so that I can restrict their use of the Internet when they are alone in the home. Therefore, kids can only use the Internet when we are at home. We also take care of the TV channels. We control the availability of channels. My kids are not demanding particularly about using ICTs. They took it normally that they are not allowed to use the Internet while their parents are not at home. (Mrs. Rahman)

We only allow our kids to use the Internet when we are at home. We do not leave the modem at home in our absence. We try to look after if the kids are browsing any website which is not adequate at their age. We encourage kids to browse and explore the websites, which have educational elements. The kids use the Internet to download music, games or the pictures of their favourite celebrities. We encourage our kids to watch or explore things that reflect our culture, traditions, and values. (Mr. Azad)

We placed the TV in our bedroom as part of control and regulation strategy. So that the kids cannot run the TV without our permission, and we can monitor which programme they are watching. (Mrs. Choudhury)

Though we have given our children access to the Internet, we constantly monitor their activities. For example, we monitor the sites being visited by them. If we are busy and cannot monitor them, we do not allow them to use Internet or computer. (Mr. Ahmed)

The parents showed and reported attempts and efforts for physical monitoring and being vigilant of children's engagement with computers and televisions. The practice of physical monitoring determines the placement and disposition of screens within the household, which

Silverstone, Hirsch, and Morley (1992) would term the objectification of the screens. Digital screens such as televisions and computers are usually seen to be accommodated in a communal space such as a living room or lounge of the household so that the parents can easily surveil their children (Green, 2002). The placement of digital screens in a common space also facilitates establishing them as shared family possessions, which could be considered as a response and effort from the parents to resist “bedroom culture” (Livingstone, 2007a, p. 302). Reflecting on the objectification and spatial positioning of the digital screens in the households, it can also be argued that age and the family composition play a determining factor (Kadi, 2013). As Kadi (2013) explores, in households comprised of elderly people, the computers are predominantly placed in a separate room. This pattern sharply contrast to my findings where electronic screens are largely placed in a communal space for monitoring children’s digital engagement.

For Livingstone (2007a), digital media technologies have brought a historical shift in the organisation of everyday family life and practices. Media technologies such as the television, computer, laptop, or mobile phone have pushed the living room-centric family leisure activities into the space of the secluded individual bedroom. The parent participants of my research, in contrast, are aware of this issue and attempt to avoid or delay this process. Mrs. Akhtar, for example, noted that the computer is placed in her husband’s study space and children know that the computer is a shared durable for the family. She said, “It has already been established to my children that the home computer is a shared resource, and everyone has access to it as required. At times it is a game machine for them, while at times, it is used as a working station by my husband and me”. Mrs. Akhtar’s statement reflects that placing the television and computer in a communal space within the home and establishing them as a family resource is one of the major regulation strategies by the parents. Parents believe that the discouragement of privatisation of viewing from an early age helps to set up the rules and regulations for children’s ICT usage. Some parents, however, voiced their concern about increased social and peer pressure for attaining private access to digital technologies at an early age.

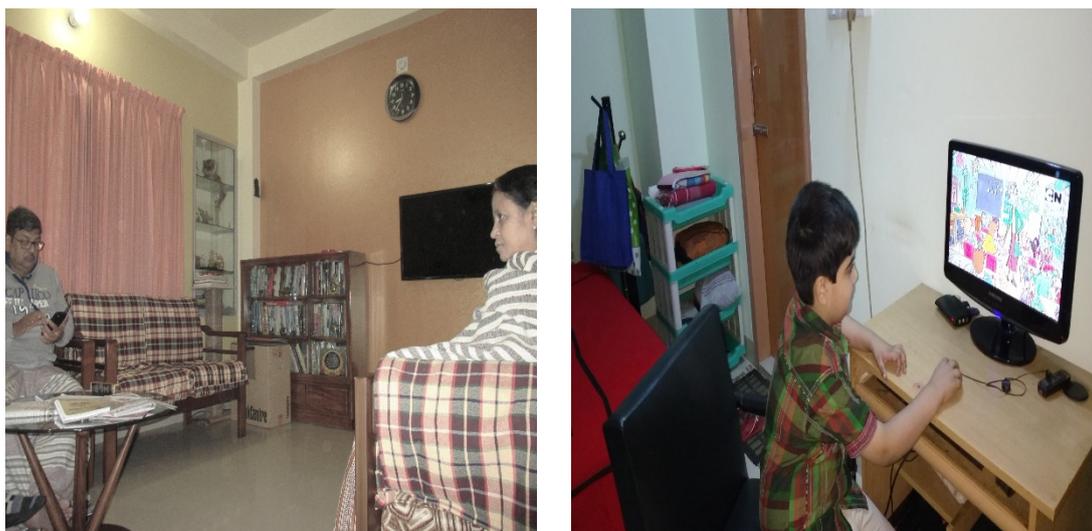


Figure 8: Placement of digital screens in the living area and master bedroom.

Source: Photos were taken by the researcher in participatory households.

From participants' accounts and my observation, children in the middle-class households gain spatial autonomy and private ownership of media technologies in their late teens (i.e. the age of 17 to 19) due to parents' recurrent attempts to articulate domestic ICTs as shared family resources, placing them in a common space. The young children are not allowed to get privatised access to the Internet-connected computer in their personal bedroom. Due to parental regulations, children tend to gain a slow and late privatised access to domestic media technologies. This late acquisition of private ownership of technologies also suggests that the understandings of children's age and maturity are culturally variant (see Prout & James, 1997; White, 2007; Solberg, 1997).

5.3.2 Parental Warmth and Mediation

While restrictive parental strategies emphasise making rules and monitoring activities to define durations, frequencies, and content to protect children from virtual harm, parental warmth or adoration involves active parental mediation and reconciliation with children's use of technologies. It implies parents' engagement with children in activities such as coviewing, or conversation on contents to create a safe environment for children to use digital technologies. Parents allow children to raise questions and create a favourable ambiance for discussion (Valcke et al., 2010; Nelson, 2010; Clark, 2011; Mascheroni, 2014). Research shows that

parental coviewing and mediation have a positive impact on children's ICTs usage (Gentile & Walsh, 2002; Lee & Chae, 2007). It is a useful strategy to mitigate potentially harmful media content. Co-viewing provides an opportunity for parents to have a discussion about potentially harmful content and reframe it by household values. Some of my participants reported that they emphasise co-viewing or co-surfing to create a space between parents and children so that children share their experience of using ICTs. For example, a mother of two young children, Mrs. Choudhury, reported how she makes an effort to use the Internet and social media such as Facebook with two of her children. She believes that it would help to limit children's use of ICTs as well as develop a bond over it. She said, "See children's use of ICTs is the social reality now. You cannot resist it; I don't even want to... So, I thought let's spend quality time with children over net surfing and social media". She further mentioned how she uses a co-viewing strategy to limit children's everyday use of ICTs as well as to build a bond between parent and child so parents have a space to initiate a discussion of potentially harmful content and reframe it is required. Mrs. Choudhury, the mother of a 10-year-old daughter and 7-year-old son explained:

I do not spend too much time on the Internet as my kids would do the same. They would take more interest and spend huge time on using the Internet, which I do not want. Rather, whenever I use Facebook, I do it sitting with my kids. For example, we watch and share pictures together; sometimes we write some comments together. I try to share everything with them. I want to make a strong bond with my kids so that they do not hesitate to share their problems and issues with me.

Another young mother, Mrs. Sultana reported:

I try to invest in building a friendly bonding with my kids so that they do not hesitate to share or ask any queries to me. I invest a lot of time to engage with my children; we do activities such as surfing the net, playing games together.

The middle-class parents sometimes use a combination of disciplinary or restrictive parenting as well as arbitrational parenting. For example, Mrs. Rahman noted employment of such a combination of parenting strategies. She said:

There is a proverb- "from the same flower the bee extracts honey and the wasp gall". You cannot stop bees or wasps from sitting on flowers. Just like that.... my kids are under monitoring now. But I have to leave them after a certain period. I will not be able to control and monitor their each and every step. All I can do... I can build their morality. I can guide them to show what is good and what is bad... And this is what I am doing. I believe that my kids are growing in such a way that

they will be able to differentiate between right and wrong, good and bad. They will collect the honey, not the gall. Sometimes, my husband and I purposely allow kids some freedom just to see if they are misusing their freedom. So far, we have not experienced any negative outcome of it...

The comment above reflects that parents are aware that it is impossible to monitor children's use of ICTs constantly. This is because the children have access to mobile or portable devices outside the home. Also, as the children grow up, parents tend to relax on monitoring and restrictions to some degree. Thus, besides defining the boundary or setting the rules, parents also emphasise children's moral development and preventive socialisation of children (see Dorr & Rabin, 1995; Gentile & Walsh, 2001). Bangladeshi parents often tend to rely on inculcating morality and values to mitigate the effects of children's exposure to digital technologies by drawing upon cultural traditions. This epitomises that the parenting and socialisation of children in the middle-class households place significant emphasis on nonmaterial resources. The parents recurrently use the phrase *manush hou* or "be human" (see Khan & Islam, 2013, p. 21) to children in everyday conversation, which embodies the parental expectations of bringing children up as people with a strong sense of morality. Though the phrase *manush hou* cannot be translated into English as it does not carry the same connotation of "be human", it signifies how human values are placed in Bengali culture (see Khan & Islam, 2013, p. 21).

According to Gentile and Walsh (2001, p. 163), parents could transmit and ingrain certain norms, beliefs, and values in an effective way so that they act as a preventive factor for children even when parents are not available for direct monitoring. This implies that parents can effectively influence children's media habits and their consequences even when they are not available to physically monitor children's ICT use (Gentile & Walsh, 2001). Such attempts of preventive socialisation and moral development were particularly demonstrated by the working mothers. They continually emphasised this given their absence from home on account of long work hours. For example, Mrs. Sultana reported: "I would rather emphasise moral control. I would like to have a conversation with my kids to make them understand that their intention does matter; they can use technology both for good and bad purposes".

Parents attempt to regulate children's Internet use by framing it with educational aspiration (see Green, Holloway & Haddon, 2013). For example, Mr. Choudhury stressed children's use of ICTs for educational purposes as part of their regulation strategies. He noted that he tried to

engage his children in using a computer and the Internet for developing a set of educational and cognitive skills to ensure a positive influence of ICTs on children. He said:

We do monitor and regulate the use of Internet of our kids. As part of the regulating strategies, from the very early age, I made my kids familiar with the sites and games for baby's education. There are a lot of educational stuff which is fun to play at the same time... My kids enjoy playing those games... I keep installing these types of games for them... the kids are five and eight years old respectively, and so far they do not take an interest in any other stuff on the Internet.

Parental engagement and mediation have an impact on children's perception of the reality of media content (see Austin, Roberts & Nass, 1990; Linder & Werner, 2012). Austin, Roberts, and Nass (1990) suggest that interpersonal communication with family members helps children to form the real world perceptions, which they can then effectively compare with their perception of the television world to better assess realism. For Linder and Werner (2012), parental mediation mitigates the effects of violent media content. The problem of children's perceptions and assessment of realism is thoroughly captured in my participant, Mr. Sarkar's narratives. He noted the story of how he discovered that his 7-year-old son mixed up the real world with that of video games. Mr. Sarkar and Mrs. Sarkar both reported that they became more aware of the importance of parents' active engagement and mediation with children after they found that their son had developed a disturbing realism about the world due to his excessive exposure to video games. Mr. Sarkar reported:

A few days ago, one of my friends came to visit us. He asked my elder son (7 years old) what he wants to be in life. My son replied that he wants to destroy the world. My wife and I were shocked to hear that. We had a conversation with him afterward and came to realise that my son has got this idea of destruction from video games. He started believing that the world of video game and the world of reality functions alike. It was horrible to come to know how video game has influenced my son's perception of life and reality. My wife and I became a lot more aware of checking and monitoring the content of the video games that he plays. We started having a regular conversation with him about video games to remove his misconceptions and reframe them if necessary. We encourage him to think in more constructive and creative ways...

Though the parents showed efforts to engage with children to mitigate the possible harmful influence of media content, there are tensions and discomforts around this parent-child interaction on certain issues and topics. Parents often noted their discomfort and hesitation in drawing a conversation with children on pornographic content due to cultural norms and

values. For example, Mrs. Akhtar noted: “We live in a conservative society where no one wants to talk about these issues openly. You may find a lot of parents who believe that it is shameful to talk about romance, marriage, and sex in front of the children”. She further explained, how she had been asked the meaning of ‘sex’ by her eight-year-old son, and how it made her realise that she needs to intervene and communicate with her children on culturally taboo issues such as sex to protect the children from receiving or developing any distorted information and ideas on those issues. Mrs. Akhtar further reported that she attempted to explain the meaning of sex to her son in the best possible way:

A few days ago my elder son asked me, “What is ‘sex’ mum”? Initially, I replied him that sex means gender - male and female. But my son was not satisfied by the answer. He was suspicious, and he told me that the word probably has a different meaning, which I am not sharing with him. I asked him, why he thinks that I am hiding something from him. He replied that he had seen something..... I did not insist him anymore, and that’s how the conversation ended up I did not ask him any further questions because if I poke him anymore, it will create a conflict. There is no point in scolding or punishing him since he is too young to understand what is right and what is wrong...

There is no Internet connection on the computer. So, I checked all his video game DVDs, and I found a game DVD on his desk, which has the word ‘sex’ written on it. I just let it be there and did not ask him anything further.

Mrs. Akhtar further described how she attempted to mediate with his son’s curiosity about the word “sex”. She noted that after she had checked her son’s DVDs and computer, she decided to have a conversation with him once again.

I decided that I should talk to my son and explain him the meaning of ‘sex’ in the best possible way. Therefore, I only told my son that you need to grow up a little more, and you need to study a bit more to understand the meaning of the word.

The parents’ inherent discomfort to have conversations with children about sexual and pornographic content often leads them to construct a false narrative or lie to restrict children from such content. Some of my parent participants reported feelings of guilt for fabricating these lies. They noted that they are not yet ready to talk to their children about issues such as sex or pornography. This was seen as a new challenge for Bangladeshi parenting. Similarly, a study based in Indonesia (Sekarasih, 2016) reported the same patterns of parenting practice. Sekarasih (2016) argues that the Indonesian parents often lie to their children in an attempt to avoid having a conversation about pornography and its harmfulness. One of my participants,

Mrs. Farah, stated that she is not at all comfortable talking to her children about sexual content. Thus, she has told her eight-year-old son that if he downloads games without his parents' permission, he might encounter some horrific and outrageous images and content that might give him nightmares. She said: "I have to intimidate him... Told him that he would have bad dreams at night if he browses or downloads the contents without our permission, and bump into disturbing images...". She further added: "I know that it is not good for me to lie to my kid, but I am not ready to reveal more or being honest to him in this case... it is hard for me...".

Drawing on the discussion in this section so far, parents employ a range of strategies to control and limit children's use of domestic digital technologies and to diminish the adverse effects of media content, which includes both an attempt to set the rules, as well as an effort to draw on conversations with children. It is, however, noteworthy that these parental attempts and roles of regulating children's use of technologies have gender differentiations, which implies that the mother and the father have different distinctive roles to play in this censorship project. As the mothers are considered to be the primary nurturer of the family, and responsible for children's educational progress (see Lim, 2008), they were seen to make an active role in mediation with children as well as setting rules and boundaries for children (see Lim & Soon, 2010; Clark, 2011) compared with the fathers. The mother makes an active decision of where to place and how to incorporate technologies such as television or computers within the daily routine and timetabling of the house. Further, mothers more frequently noted the importance of parental mediation and spending time with children compared with fathers. In contrast, fathers are usually active in technical surveillance, such as checking the web history or installing censorship software.

5.4 Children's Perceptions and Strategic Responses to Parental Regulations

As noted in Chapter 2, despite the conflicting relationship between the local idea of guardianship/*Obhivabokotto* and the (Northern) idea of children's agency (see White, 2007; Doftori, 2004), there is an increasing space for a children's role as the negotiator in Southern (non-Western) cultures and households (Lim, 2008). In regard to children's autonomy, Doftori (2004) argues that the children from nonprivileged communities in Bangladesh usually enjoy more freedom compared with the urban middle-class children due to their economic contribution to the family. Drawing on Doftori (2004), I argue that if the source of autonomy

and negotiation for children from lower socioeconomic strata is their economic contribution to the household, it is the advanced skills and competencies in ICTs for the urban middle-class children that gives them some autonomy. This section of the chapter discusses how the urban middle-class children combat or evade the parental regulation on the use of ICTs (see Tapscott, 1998; Green, 2002; Livingstone & Bober, 2004; Williams & Williams, 2005). In this contestation, the children often use their expertise in digital technologies, which in turn permits them to achieve a certain degree of autonomy within their households. In particular, the advanced knowledge and expertise in digital technologies are used as a “bargaining chip” (Williams & Williams, 2005, p. 319) by the children, which enables them to play a more mature role in family affairs.

5.4.1 Attempt to Gain the Private Ownership of the ICTs

For Livingstone and Bober (2003, 2004), parents and children often play a game of attempted control and attempted evasion, which turns it into a dialectical relationship (see Solberg, 1997; Kuczynski & Mol, 2015). The parents and children constantly construct narratives and counternarratives around it (Williams & Williams, 2005; Mascheroni, 2014). These narratives reveal the household’s tensions regarding younger peoples’ digital involvement. For example, as noted earlier in this chapter, the parents always attempt to delay children’s acquisition of private ownership of digital technologies by employing several different strategies. Simultaneously, the children attempt to gain private ownership of the gadgets by gaining their parents’ trust as they grow up (Haddon, 2015). Despite parents’ attempt to defer their children’s private ownerships of ICTs, the children inevitably start gaining autonomy and personal ownership of electronic gadgets as they grow up.

For Bakken and Brown (2010, p. 359), “Behavioural autonomy development during adolescence involves a negotiation of social roles as well as overall changes to the nature of the parent-child relationship”. The parental authority starts loosening as children grow older (see Green & Haddon, 2015). Thus, children in their late teens gain more privacy and freedom regarding the use of ICTs. For example, children who are in their late teens are given the opportunity to use the computer as a more individualised resource for both education and entertainment purposes. These children often have an Internet-connected computer in their bedroom or study space. This can be seen as a renegotiation of the placement and objectification of computers due to changing the power relation between members of the

household (Kadi, 2013). For example, one of my 18-year-old participants, Rayed, noted that he had the private ownership of a desktop as well as a newly bought laptop. He said that his father had to come to his bedroom to use the desktop sometimes. This demonstrates a significant shift of parental authority and children's autonomy (see Haddon, 2015, p. 1).

The parents showed relatively high concern about the mature or adolescent children compared with younger ones. The concern was largely centred on spatiotemporal seclusion due to their increased engagement with digital technologies and private ownership. The portability and easy access to ICTs resulted in democratisation and multiplication of screens within the households, which echo an underlying process of individualisation and fragmentation (Livingstone, 2007a). Clark (2011, p. 325) has seen this isolation as a problem of "co-presence", which suggests that younger people prioritise and pay more attention to the individuals at the other end of the gadgets than to people present in the same room.

Though there is a paucity of research on the issue in Bangladesh, it has recently been a much-discussed topic in public discourses and media. In a recent article in the leading national daily *Prothom Alo* (Mansura Hossain, 19 July 2015), it has been argued that children's increased use of ICTs creates spatiotemporal seclusion from family and social relationships. The article sheds light on parents' concerns about children's engagement with ICTs for a significant number of hours on a daily basis, which subsequently causes isolation from human interaction or nonparticipation in social or family events. This tension resonated in some of my participants' voices. For example, Mrs. Karim, mother of an 18-year-old son named Imtiaz, noted:

My son has grown up; he is 18 and just started his university. But I still have to intervene in his usages of computer and internet. I have to remind him now and then that he is spending way too much time on the computer, and the study is getting affected.

It is not only about the study, by the way. At times I feel that he has secluded and withdrawn himself from a lot of family matters and events. He does not interact much with his dad or me, nor even with his younger sister. He is hooked on his video games... feels like it's an addiction now. We expect him to have dinner with us. I often have to drag him to the dining table to make him have dinner with us...

Further, one of my young participants, 18-year-old Rayed noted:

Oh!... the desktop is my best friend... it is my game machine now. I usually use the laptop for study purposes. Honestly speaking..., I have not watched TV in the last

three years. I like to watch movies, and I do that on my laptop. It gives me more control over the watching experiences. I do not have the patience of watching a movie on TV with a lot of commercial breaks.

Rayed's statement thoroughly captures the problem of spatiotemporal isolation as he noted that he uses his personal laptop and desktop for his individual leisure activities, rather than sitting and enjoying time together with his family. The concept of "family television" is rapidly diminishing in such households due to the existence of multiple access points (see Morley, 1986; Livingstone, 1999; Kadi, 2013). These multiple access points include Internet-connected desktops, laptops and tablets, and adolescent children are the primary users of such access points. They enjoy movies, music, and other television programmes like video games on their personal gadgets (Livingstone et al., 2014; Livingstone, 2015). Thus, the parental concern shifts from the harmful content to a spatiotemporal seclusion for the adolescents.

5.4.2 Children as the Negotiators: the Use of Strategies to Evade Regulations

For Mascheroni (2014, p. 451), "Children are not passive recipients of parental mediation: rather, they negotiate, resist or ignore parental attempts to regulate their relationship with their smartphone". The children often employ a range of different strategies to optimise their use of mobile phones, the Internet, and computers to dodge parental monitoring, such as switching the mobile to voicemail, turning the phone off or giving the excuse of the battery running out (Green & Haddon, 2009). Adolescent participants showed the skills of using subtle, sophisticated strategies to reconcile the conflict. They tend to become more secretive about their activities and make use of strategic disclosures to evade parental regulations as well as to avoid direct conflict (Bakken & Brown, 2010). The strategic disclosure involves partial disclosure of information or complete omission of it (see Parkin & Kuczynski, 2012). "Partial disclosure involved instances when adolescents provided parents with some details about their transgression to avoid parental discovery of the full extent of their covert behaviour" (Parkin & Kuczynski, 2012, p. 646). On the contrary, complicit omission refers to "... omitting information because they believed that disclosure was unwanted by parents (Parkin & Kuczynski, 2012, p. 647).

Partial disclosure or complicit omission strategies are often used by children to gain parents' trust as well as to protect the information and details of their transgressive behaviour or breach of parental regulation (Bakken & Brown, 2010; Parkin & Kuczynski, 2012, p. 646-647). For

example, during the one-to-one interview, 19-year-old Iren and her mother individually claimed that they share a friendly relationship and often communicate with each other about various experiences and activities that both of them go through every day. Iren noted that she is aware of her parents' trust of her, and sometimes she takes advantage of it. She said:

I know my parents trust me, and they think that I disclose everything to them... So, it's easy for me to disclose the things and activities partially... without giving too much of the details... or sometimes, I choose not to give any information unless I have been asked to... For example, I often spend my pocket money to download my favourite ringtones or music or videos, which my parents are not aware of ... as I am not allowed to spend money on that stuff...

Iren also noted how she manages parental monitoring over her use of mobile phone by changing the topic of the conversation while the parents are around. She said:

I have my mobile. As I have grown up, my parents do not attempt to regulate or monitor my use of mobile phone directly as they do with my 10-year-old younger brother. But I know that my mum still tries to hear my phone conversation indirectly as if she has another task to do. As I know what is appropriate and inappropriate to say in front of my mum, I often change the topic of the conversation if I find her around. My friends at the other end of the phone also understand the reason for changing my topic of conversation as they do the same thing if their parents are around. If my parents are around, sometimes even I choose not to respond to a friend's call.

Further, 18-year-old Anynna reported that she had been given a mobile phone after she passed the high school board exam so her parents can communicate with her when she is outside or with friends. Anynna believed that the phone had given her an opportunity to be connected with friends as well as to use it for other purposes such as playing games, listening to music and so on, which she thinks are liberating experiences that diminish direct parental control. She said that it was easier for her to convince her parents that she is safe and with friends, which allowed her to be outside of the home a bit longer than she used to be before getting a personal phone. Anynna's case exemplifies Williams and Williams' (2005) point about how access to digital technologies such as mobile phones facilitates children's increased spatial autonomy. For Williams and Williams (2005), children's access to mobiles tends to relax the regulations for adolescent children's return home. This is because the parents' sense of risk and danger is lessened due to the feeling that they are connected to their children and they have a presence in their children's lives even when they are physically distant from them (Williams & Williams, 2005; Mascheroni, 2014). For example, the parents of adolescent children who had been given

access to private mobile phones reported that it allowed them to have greater control and knowledge of their children's whereabouts when they are outside the home. It gives them the satisfaction that their children are safe. The "tension between surveillance and emancipation" embodies parents' perception that mobile phones are a means of extended parental control and monitoring outside the domestic realm, while the children consider them as a means of liberation from constant parental monitoring as well as a form of protection due to connectivity to parents (Mascheroni, 2014, p. 451).

The adolescent participants showed an awareness of parental expectations and the sanctioned behaviours and activities for them. For Parkin and Kuczynski (2012), in adolescence, children come to realise parental expectations and tolerance levels. Knowledge about parents' expectations and the limits of tolerance helps them to construct a plausible narrative about their transgressive behaviour and the breaching of parental rules (Parkin & Kuczynski, 2012). Drawing on the field observation and parents' and children's responses, it appears that the claim of a friendly relationship between parents and children is a well-managed strategy to gain each other's trust, which facilitates constructing a credible narrative or disclosing partial information to evade parental regulations without being direct confrontational to or opposing parental authority (see Parkin & Kuczynski, 2012).

While teenagers like Anyinna and Iren showed skills of making strategies by drawing on their understanding of parental expectations and levels of tolerance, there was evidence of poorly articulated parental concerns and regulations. For Haddon (2015), parents often make very broad, generalised, and vague reasons for their regulation and control. My field notes suggest that there are recurrent instances of such articulations of parental regulations and interventions. Almost all of my young participants reported broad, implicit articulations of parental concern and censorship. For example, "this is bad for you"; "this is harmful to you"; "your age is not right for it"; "it will have a bad influence on you". A set of anecdotes from Mrs. Karim and her son, Imtiaz, exemplifies the problem of vague, generalised articulations of parental concern. While Imtiaz's mother, Mrs. Karim, is concerned about Imtiaz's isolation and withdrawal from family events and affairs due to his obsession with video games, Imtiaz's perception of his mother's concerns seems to be very different from that. He thinks that his mother unnecessarily panics too much about his fondness for video games. He said: "My mum thinks that too much computer or video game will turn me into an evil or a bad person". Such mention of parental expectations and risks of over exposure to ICTs operates at a broad level. No specific threats

are communicated to children. This problem is particularly acute when it comes to communicating with children regarding the sexual or adult content of media and its potential harmfulness. As already noted, Bangladeshi parents often rely on false narratives to prevent children from consuming adult content.

5.4.3 Children as ICTs Gurus

Young children are usually more knowledgeable, advanced and skilled users of ICTs than their parents (see Tapscott, 1998; Livingstone & Bober, 2004; Lahtinen, 2012). Children are more confident users of ICTs and have a greater online self-efficacy than that of their parents (Livingstone, Bober, Helsper, 2005; Livingstone, 2007b). Consequently, children's advanced knowledge and expertise in digital technology facilitate a reverse hierarchy of knowledge within the family (Grossbart, 2002; Lahtinen, 2012). It also triggers a reverse socialisation on ICTs. Parents often learn about ICTs and digital media from children who are often seen as the ICT gurus in the family (Grossbart, 2002; Green, 2002, Livingstone & Bober, 2004 2005). This challenges the idea of the unidirectional socialisation model of parents transmitting all knowledge, norms, and values to children (Kuczynski & Mol, 2015).

In contrast, the newly proposed model of socialisation perceives it as a bidirectional process, which is complex and interactive in nature (see McDevitt & Chaffee, 2000; Correa, 2014; Kuczynski & Mol, 2015). Such socialisation experiences are noted by the majority of my parent participants. Some parents reported that they were trained in computing and Internet browsing by their children. Parents also reported that they often ask for IT help from their adolescent children. For example, Mr. Ahmed said, "My 12-year-old son is the most skilled one in technology within the family. Even my 14-year-old daughter is more competent than I am. They often train my wife and me in ICTs. We learned many things from the kids". These statements reflect that the children could be seen as the agents of social as well as technological change within the household (Grossbart, 2002; Lahtinen, 2012).

Simultaneously, children's advanced technological knowledge could be seen as a negotiating or bargaining tool (see Williams & Williams, 2005). Children's higher technological knowledge enables them to evade parental regulation regarding the use of ICTs, but it also empowers them (Livingstone & Bober, 2006; Livingstone, 2007b). It is seen in some households that computers and the Internet are adopted and used merely for children's interest

and development. In those households, parents' interest and knowledge in ICTs are at an elementary level, and parents only want to make sure that their children do not fall onto the wrong side of the digital divide. The parents perceived computers as an important tool to deliver upon their aspirations for their children (see Tripp, 2010). In such households, children's, particularly adolescents', opinions are highly valued when it comes to purchasing domestic ICTs such as mobile phones, computers, tablets, and Internet connections. Children often participate and intervene in the decision-making for domestic digital technologies due to their superior knowledge of ICTs. For example, Mrs. Saba noted that she and her husband always value and rely on their adolescent son's and daughter's judgments about smartphones or desktops. She said:

They (children) have a better knowledge and understanding of technicalities and functionalities of the modern technologies... there are some buzzwords like... ram, processors, motherboard blah... bla...bla... I often hear these terms while my children talk about gadgets... I do not have any idea of those things; all I know is that those are important considerations for purchasing or choosing the right device for you... so, my husband and I rely on my children to a great extent before making any decisions on gadgets.

Mrs. Saba's 17-year-old daughter, Tasnim, reported the same. She explained how her expertise and knowledge of ICTs were valued by her parents, which in turn empowered her gradually to be part of the family's decision making. She said that her opinions and judgements on choosing the right configurations for the family desktop and her parents' mobile phone were appreciated. She thinks that those decisions were useful for proving her credibility, wisdom, and maturity to her parents. She noted: "I could see the difference now... I am considered as an important and mature person by my parents. They now often ask my opinion or at least inform me on other family stuff as well... and it feels good..." Another participant, 18-year-old Adnan, reported that he had been asked to decide which Internet provider would be good for the household's internet connection. He said, "my parents do not keep tab of these things... they do not know the current deal or the best package for the Internet. So, I made the decision on getting the Internet connection". The narratives of the young participants reflect that children's expertise in digital technologies empowers them to be part of the family decision making occasionally. Children recognise their expertise as a bargaining device to leverage their position in the power-play with parents.

In summary, children in the middle-class household play an important role in the appropriation and acquisition of digital technologies by participating in the decision-making processes. Unlike other matters, children's knowledge and opinions are particularly valued in the purchasing decisions of domestic ICTs. My analysis and findings echo the findings of Tapscott's (1998) research. Tapscott (1998) argues that young children are more confident, knowledgeable, tech-savvy and competent than their parents. Reflecting on the generational difference of ICTs skills and competence, Tapscott (1998, p. 2) notes, "for the first time in history, children are more comfortable, knowledgeable and literate than their parents about an innovation central to society". Children's role, however, does not end with the adoption and acquisition processes. Rather, they often continue to contribute to the successful incorporation of the technology into the household by training and helping parents to develop skills and competence. If there are any malware problems or fixes required, parents tend to rely on adolescents to repair and resolve them. Parents recognise their role as an ICTs expert or trainer. Thus, the technology allows children to showcase their mastery in the tussle between parents and children.

5.5 Chapter Summary

The analysis of this chapter reflects that parenting and intergenerational relations in middle-class Bangladeshi households has some uncanny resemblances with the Northern accounts (Livingstone, 2007b; Valcke et al., 2010; Padilla-Walker & Coyne, 2011; Sekarasih, 2016) of the same. The intergenerational dynamics and tendencies over the use of digital technologies in the middle-class Bangladeshi households mirror the findings of the previous studies. As Livingstone (2007) noted, in the western [Northern] society, the use of ICTs and media technologies has gone through a shift from communal, family-centred leisure or entertainment of living room to one dispread throughout the home especially into the bedroom. Livingstone (2007b) and Clark (2007) both pointed out that this shift is linked to the idea of increasing individualisation and the rise of risk society, particularly the idea of childhood risk and parental anxiety and concerns around it. Analysis of this chapter and the anecdotes of my parent participants also suggest that the use of digital technologies is increasingly becoming an individualised leisure activity. My participants further expressed their desire to raise children with greater digital literacy, but at the same time, they want to protect them from online risks.

The analysis also highlights an advanced level of digital engagement and penetration in the households, which is reflective of the fact that it is often a lot easier to deliver wireless Internet to households than configuring plumbing or electricity. Thus, while gazing at the Bangladeshi household in terms of informal, self-configured infrastructure and utilities, as detailed in the previous chapter, it might look distinct and different due to its interrupted power supply or plumbing issues. However, in the realm of the digital world, all middle-class households look alike because the Internet or Wi-Fi is in some regards ubiquitous. The uneven penetration of basic utilities and ICTs reaffirms my arguments and operationalisation of splintering urbanism in Chapter 4.

The parental concern for saving children from all possible harm results in imposing regulations, censorship, and curfews for children in everyday life. Parenting and socialisation of children have become increasingly challenging for middle-class parents due to the emergence and integration of digital technology as a new childhood phenomenon (see Livingstone, 2007b). Thus, parents are confronted with a new challenge in socialising children in finding a fine balance between regulating children's exposure to these technologies as well as equipping them with advanced technological knowledge and skills for the future.

The integration of domestic ICTs has influenced the parent-child relationship. The sense of online risks pushed parents to actively engage more with children. Parents attempt to delay children's acquisition of private ownership of digital technologies by articulating them as shared family resources from early childhood. On the contrary, adolescents' role as ICTs expert of the household empowers them to intervene in the domestic decision making concerning technologies. Though this intervention widens the space for children's agency, the parental authority is not threatened by the intervention at all. The increased agency for children does not necessarily suggest increased rights and choices for them (Williams & Williams, 2005, p. 318); it rather suggests a shift in parenting style, which places a greater emphasis on parental mediation and engagement with children.

Though there is a visible shift in parenting style that places increased emphasis on parental engagement and conversation with children, Bangladeshi parents by and large still feel embarrassed and uneasy to have conversations on culturally prohibited issues such as sex and pornographic content. Parents often tend to rely on the idea of preventive socialisation (see Dorr & Rabin, 1995; Gentile & Walsh, 2001) and moral development of children so that

children self-regulate in their exposure to ICTs. The parental regulations and censorship are often compliant with cultural traditions and values. Parents showed a tendency of encoding regulations and making numerous references to cultural elements (e.g. respecting the elderly and the importance of listening to them) while communicating with children.

At the same time, age is seen to be an important factor in determining access to, and use of, domestic ICTs, which largely mirrors the findings of previous research (Tapscott, 1998; Hynes, 2005; Kadi, 2013). There is a visible generational gap in the perception, interest, awareness, and enthusiasm about digital technologies. Teenagers, particularly in the late teens, for example, achieve greater autonomy and access to individualised usages and ownership of digital technologies compared with younger children. Further, the access to technology does not necessarily refer to the ownership and possession of it. Rather, it also indicates the acquisition and development of relevant skills and knowledge to effectively use technologies. Parents are observed to be less technologically competent and enthusiastic compared with their children. Among the parents, there is a visible generational difference and gap on the level of technological competence. Relatively young parents, aged in their thirties and forties, had a better understanding of and interest in digital technologies compared with the parents aged in their late forties to sixties.

The analysis of intergenerational politics over the use of domestic technologies, in this chapter, suggests a mutual determination (see Lie & Sørensen, 1996; Lehtonen, 2003; Berker, 2011; McDonald, 2015) and shaping of technology and generational dynamics. Parents' attempt to articulate technology as family resources or their attempt to normalise and encode ICTs with educational aspiration shows how technology is incorporated in accordance with the household's interest, values, and desires (see Silverstone, Hirsch & Morley, 1992; Silverstone, 2005; Mascheroni, 2014). On the contrary, changes in parenting style, parental authority and parent-children equation over the consumption of ICTs suggest how technology redefines and restructures the relationships (see McDonald, 2015).

Further, parents are deeply anxious about protecting children from potential harm, risk, and violence. The responses of my parent participants thoroughly mirrored how children in middle-class Bangladeshi households are seen and valued as "a protected species" (Jackson & Scott, 1999, p. 86). It also alludes that children and childhood are the loci of risk and anxiety for parents, which highly resembled the Northern equivalents. This practice of protecting children,

at the same time, destabilises the so-called “popular image” and “grim picture” of Bangladeshi children and childhood, as discussed in Chapter 2.

Chapter 6

Gender Politics of Everyday Technologies

6.1 Chapter Overview

I had my moments seeing my husband was trying really hard to figure out the operation of the newly bought induction stove. I think it's fair enough... I guess he feels the same when I have to ask for his assistance in removing the virus or installing the operating system on the desktop. (Mrs. Ahmed)

The comment above from one of my participants, Mrs. Ahmed, reflects how power and pleasure are claimed and played over the everyday use of technologies (see Kleif & Faulkner, 2003; Kadi, 2013). It also highlights that technology and related skills are often gendered. This chapter explores the gender politics of consumption of domestic technologies.

It is difficult, if not impossible, to discuss the gender-technology relation in a domestic setting without highlighting the sexual division of labour and roles in the households. In particular, “For the study of domestication of technology, it is important to take the gendered character of domestic labour as well as broader gendering of domesticity into account” (Kadi, 2013, p. 48). The sexual division of labour often determines the use of, and the access to, domestic technologies. Kadi (2013), for example, argues that some women participants of her study tend to use the Internet at night when they cannot sleep. She argues that this practice of Internet use is linked to the gendered division of labour in households. As women do more housework, it might leave them less time to spend on the Internet during the day. Following a mutual determination and co-constitutive role of gender and technology (Wajcman, 2010; Halford et al., 2010; Aaltojärvi, 2012; Kadi, 2013), this chapter engages in the exploration of: 1) the implication of gender on the adoption, integration, and use of technologies; 2) the implication and influence of technology on reproducing, reinforcing, or redefining and subverting gender roles and the division of labour; 3) the symbolic association between gender and technology – while some technologies and related practices are perceived as feminine, some are associated with masculinity.

The first section of the chapter will focus on the practices of gender, gender roles and the division of labour in the households. I note that the gendered division of labour is often shaped by the construction of gender-space dynamics and the seclusion of women in local culture. Women's seclusion is one of the dominant patriarchal practices in the South Asian society to regulate women's mobility and participation in public domains to regulate their access to opportunities and resources (see Kelkar, Nathan & Jahan, 2004; Abraham, 2010). The social and local construction of gender roles imprints certain practices as feminine and masculine in the middle-class context of Bangladesh. The following section discusses the level of automation in the kitchen, and if it has any impact on the gendered division of the labour. The remainder of the chapter will focus on how certain technologies and related skills are ascribed as feminine and/or masculine, and how the gendered power is practised and claimed through the use of domestic ICTs such as the computer, the Internet, mobile phone, and television.

6.2 Construction of Gender, Space and the Division of Labour

“Gender is not fixed or finished, but fluid and malleable, made in practices of everyday life” (Halford et al., 2010). Gender is often produced, reproduced and claimed through the everyday practices of domesticity and housework. The production and operation of gender require some norms and regulations; it “operates as the normalising principles of the social practice” (Butler, 2004, p. 41). Gender, in turn, is reproduced with a power structure through the repeated practices of such norms (Halford et al., 2010). This section of the chapter charts the norms and the regulations that produce and reproduce gender practices in households. I am intended to discuss the construction and underlying logic of the sexual division of labour, gender roles, and gender-space relationships. The gendered division of labour across the middle-class Bangladeshi households I explored are more broadly and primarily determined by the gendered construction of space, both in and outside of the households, and this is dominated by women's seclusion in the local culture. In particular, the section outlines how some spaces and activities are constructed as masculine and feminine in the everyday domestic life.

The dominant feminist claim is that space is central to both masculine power and feminine resistance (Jackson, 2011). It is evident that men's and women's use, experience, and reaction to the spatial structure is different and distinctive from each other (McDowell, 1982). For McDowell (1982), “... space is socially constructed and in its turn, once bounded and shaped,

influences social relations” (p.62). The division of urban space reflects as well as influences the gendered division of labour (McDowell, 1982; Crinnion, 2013). The social construction of gender defines some spaces for women, and some spaces for men (Jackson, 2011). Thus, the kitchen is predominantly figured as a feminine domain due to women’s traditional gender roles as the primary nurturer, whereas the marketplace is profoundly seen as a masculine space largely due to the seclusion of women in Bangladesh.

The late nineteenth-century feminist activism and scholarship in Western Europe and North America proclaimed the idea of a kitchenless household (Floyd, 2004). The kitchen and housework were perceived as a source of recurrent oppression against women that enslaved and exploited women for unpaid labour (Wajcman, 1991; Ahrentzen, 1997; Floyd, 2004). Such a conceptualisation of the kitchen has been critiqued and challenged by feminist geographers in recent times (see Christie, 2006; Johnson, 2006; Robson, 2006; Meah, 2014; Smith, 2015). The limit of such a conceptualisation is that it is predominantly based on the experience of white, Anglo-American, urban, middle-class households (Christie, 2006). The Anglo-American perspective and understanding of the relationship between gender, the kitchen, and power might not be useful to comprehend the condition of possibilities of the spaces such as the kitchen. In contrast, the feminist geographer comprehends the kitchen as a space for women to exercise their power and agency (Christie, 2006; Johnson, 2006; Robson, 2006; Meah, 2014; Smith, 2015).

Women often exercise their power through domestic “gastro-politics” (Appadurai, 1981, p. 495), which refers to the politics and conflicts involved in the preparation and allocation of food - what will be prepared for whom and when (see Robson, 2006; Meah, 2014). Robson (2006, p. 671) argues that the reproductive work such as preparation of food and cooking could be used as a tool to express reward and punishment. Robson (2006), noted: “The responsibilities of meal preparation give women the ability to exercise power over what is prepared and when, how it is distributed and to whom. Thus, women can easily express favour or displeasure to their husbands...” (p.671). Women’s powerfulness in domestic gastro-politics is vividly comprehended in Mr. Rahman’s humorous comments. Mr. Rahman stated: “if you wish to have a good dinner, you should listen to your wife and follow the grocery list made by her religiously (laugh!)”. Such phrases in day-to-day conversation are perhaps indicative of the awareness of the household members about women’s managerial role, control, and power in the kitchen and food making. This gastro power, however, is also a key to the efforts made by

the household matriarchs to define their middle-classness in distinction to their maids (see Chapter 7).

It is worthwhile noting that there is a popular Bengali saying, “*bou aj khete dibe na*”, which refers to, “the wife will not provide the meal today”. This phrase is typically used in everyday discourses in a playful way both by men and women to mean that not being nice and respectful to the wife or not listening to her might bring the misfortune of not having food for the husband. The humour, on the one hand, reinforces women’s stereotypic gender roles as food makers. On the other hand, it reflects an implicit threat and powerfulness of women with the food-work and the management of household chores. A review of my field notes suggests that this popular Bengali phrase had been used and mentioned by my participants on multiple occasions during the course of my fieldwork. The male participants were recorded to use this idiom in a playful manner largely to tease their wives.

Kitchens and the food-work could be used “as resources in performing creativity and resistance, as well as the mechanism of survival and empowerment” (Meah, 2014, p. 677). The relation between the kitchen and gender power, in what I refer to as Southern culture, has been comprehended as complex, nuanced and layered (see Christie, 2006; Johnson, 2006; Robson, 2006). The kitchen can be seen as a site for showcasing and exercising different levels and degrees of freedom, agency, and capacities for women (see Christie, 2006; Meah, 2014; Smith, 2015). The kitchen can be seen as an “improvisatory and rebellious zone” (Floyd, 2004, p. 61). Women have the capacity to “appropriate kitchens for a range of purposes, including remaking and subverting gendered roles and resisting gendered discourses” (Meah, 2014, p. 675). Floyd (2004) argues that there are countless devices, strategies, and techniques used in kitchen work to avoid labour and save time while fulfilling the expected demands of family and friends. “It is certainly not unusual to find kitchen texts that draw on this idea of creative and rebellious improvisation, in which the conventions of kitchen behaviour are rifled and new rules written” (Floyd, 2004, p. 65).

The middle-class women were observed to mirror such creativity and capacity through everyday practices and management of the kitchen and other reproductive tasks. The women demonstrated advanced skills and expertise in using kitchen technologies such as the rice cooker, microwave, oven, blender, washing machine and so forth. The women reportedly evolve to become innovative, versatile users of kitchen appliances with their tricks and

improvisational strategies, which affirms de Certeau's (1984) notes on everyday consumption: consumption is an everyday practice that is often creative, improvisatory and strategic. One of my participants, Mrs. Ahmed, for example, noted how she mastered the tricks and trades of an electric oven. She noted that she wanted to buy a microwave, but due to her ignorance, she ended up buying an electric oven instead of the microwave. She was suffering from anxiety as she realised that she did not know how to ensure the appropriate use of the electric oven. She thought that she had wasted her money in purchasing an inadequate technology for the kitchen. But then she started experimenting with the technology and finally came up with several different innovative uses for the electric oven. As Mrs. Ahmed denoted:

Frankly speaking, when I bought the electric oven, I did not have an understanding of the difference between a microwave oven and an electric oven. After buying the electric oven, I realised that a microwave oven would have been adequate for me since it is easy and less time consuming to heat food in the microwave. At first, I found myself guilty of wasting money.

Initially, I felt that I bought a useless machine... I was at a loss to decide what I should do with the oven. Then gradually I got confident and courageous as I started experimenting... and ended up innovating some amazing usages of the device, which pretty much out of the boxes, I believe... at least they were not in the user manual. For example, roasting spice manually on gas or electric stove is a strenuous process. I have to stand constantly for a long time near the stove. So, I started using the oven for roasting spices. And I am glad that it served my purpose. I use the oven to roast spices and making pickles. Since we live in a rental apartment, we cannot use the rooftop terrace of the building. Hence, I cannot sun dry any food such as pickles, or spices. I use the oven for both roasting spices as well as dehumidifying and removing bugs from spices. The heat of the electric oven helps to remove bugs from spices. I also make pizza, and cake using the electric oven. Now I am happy... I never thought that the machine will do such wonders...

Further, Mrs. Sultana noted how she uses a rice cooker for slow oven cooking. She said that she does not cook rice with the rice cooker on an everyday basis, but she uses it for food items that require slow oven cooking techniques. Such uses of the rice cooker are very different from the purposes and intentions the producers of the technology had in their mind while designing it. It reflects that technology might not be used to its full potential that the producer and designer of the technology had in mind, but that the uses might be altered, or different new uses can be innovated by the users.

Mrs. Ahmed's and Mrs. Sultana's case exemplify how the users overcome the initial hesitation, doubt, and unfamiliarity with growing experience and expertise to eventually

domesticate the technology (Haddon, 2001). The unruly technology is turned into a tamed, disciplined one through the user's sophistication and knowledge (see Silverstone, 2005; Bertel, 2013). It also suggests that the technology can be domesticated and integrated into a manner or with a purpose that might be far removed from the original intention of the design and purchase of the technology (Silverstone, Hirsch & Morley, 1992; Silverstone, 2005; Aaltojärvi, 2012). For Aaltojärvi (2012), "... not all people perceive the same gadgets the same way, and this reading process may be quite different from that which the designers had expected" (p. 211). Simultaneously, the technology may redefine the user's lifestyles, routines, and rituals (Haddon, 2001) as Mrs. Saba's experimental use of the electric oven meant she found a way to avoid spending long hours in the kitchen during hot, humid summer days for tedious jobs like roasting spices and making pickles.

Despite women's advanced knowledge and expertise in handling kitchen technologies, women are often not credited for their technological competence and skills. This is due to the traditional theorisation of technology as masculine, which perceives heavy industrial machinery, cars (Wajcman, 1991; Aaltojärvi, 2012), and perhaps now the software- and hardware-based digital gadgets as technologies. Such a conceptualisation of technology tends to marginalise the significance and experience of so-called women's technologies such as the kitchen or cooking appliances, and labour-reducing devices. It also tends to conceive women as technologically incompetent and inferior (Wajcman, 1991; Aaltojärvi, 2012). This pattern of reduction and marginalisation of women's technological expertise is also evident in professional sectors, such as healthcare and medicine. As Margarete Sandelowski (2000) noted, the male-dominated sector of medicine and surgery is often represented as high technology while the female-dominated profession of nursing is often reduced to a low/anti-technological domain. Thus, women's expertise in using advanced, digital, labour-reducing devices to perform the housework does not typically get acknowledged as technological competence.

Despite women's managerial roles in the kitchen, in Bangladesh, men are more likely to do the public aspects of the food-work such as provisioning and grocery shopping. Grocery and produce shopping is predominantly seen as a masculine task. This pattern is common in many other Southern contexts and cultures, as Meah (2014) noted a similar arrangement for the gendered division of labour in African households. Meah (2014, p. 677) argues that since men are more likely to manage the public aspects of the food work such as provisioning, it is often

assumed that the women have a lack of power in food-related work. Thus, the masculine figuration of everyday activities such as provisioning is linked to the gendered construction of public spaces, such as markets.

The market is traditionally perceived as a masculine space in South Asian culture (Kelkar, Nathan & Jahan, 2004; Abraham, 2010, F. D. Chowdhury, 2010). The construction of the market as a masculine space is linked to the patriarchal ideology of regulating women's mobility (Kelkar, Nathan & Jahan, 2004; Abraham, 2010). Such a construction of space and gender has an enduring influence on women's practice and access to urban space, despite their role as productive economic agents. Many of my female participants, for example, expressed their unwillingness to do the produce and grocery shopping, noting the crowded, chaotic, disorganised and dirty marketplaces. The female participants of this study expressed their unwillingness to go to the produce market or *kacha bazaar* (the market for raw items) in the following manner:

I buy vegetables from the hawkers who visit the locality on a daily basis. For buying meat and fish, I have to depend on my husband. He usually buys meat and fish, as I do not feel comfortable doing it. In our country, the environment of meat and fish market is very unhygienic; I cannot bear the fishy smell of the market. (Mrs. Saba)

Another participant, Mrs. Rahman, noted:

I do not like the atmosphere of the kacha bazaar. I cannot go to the fish and meat markets either... The fish and meat markets in our country are so unhygienic and the ambiance very filthy. It literally stinks. I do not feel comfortable at all. If I go there to buy fish or meat, I cannot eat that after cooking those items. It is a psychological problem, I know. I feel the smell of fish market while eating.



Figure 9: The urban produce market (kaacha bazar) in Bangladesh

Source: Retrieved from <http://www.amaryellowpages.com>

In the global North, instead, the shopping is figured as a feminine activity as an extension of food preparing tasks (Cockburn-Wootten et al., 2008). The introduction of department stores, supermarkets, and self-service concepts facilitate women to take charge of domestic provisioning (see Nava, 1996). Unlike the noisy, crowded environment of the produce markets in the global South, the Northern concept of shopping malls and supermarkets is a highly regulated, protected, and aesthetically designed space to attract the women as consumers with an assumption that shopping constitutes a feminine leisure activity (see Blomley, 1996; Rappaport, 2000; Cockburn-Wootten et al., 2008; Crinnion, 2013).



Figure 10: Newly developed superstores targeting women customers

Source: Retrieved from http://www.online-dhaka.com/1_8_17507_0-agma-bd-super-shop-dhaka-city.html

<https://jessicamudditt.files.wordpress.com/2011/07/julhas-40-shrunk.jpg>

Though it is predominantly argued that the seclusion of women in many Southern societies such as Bangladesh often contributes to restraining women from accessing and participating in the public domains such the marketplace (Kelkar, Nathan & Jahan, 2004; Abraham, 2010, F. D. Chowdhury, 2010), none of my participants mentioned or highlighted the issues of seclusion. They, instead, repeatedly noted the unhygienic and chaotic nature of the marketplace for their disinterest in going grocery and produce shopping, which in turn reflects the gendered construction of urban space, and the inherent sexism of the modern city (Bondi & Rose, 2003). Bondi and Rose (2003) argue that the spatial sexism of the city often creates a barrier to women's mobility. The construction of urban space perpetuates gender roles and the inequalities (Bondi & Rose, 2003; Crinnion, 2013). The infrequent appearance of women in the produce market, therefore, might be indicative of the spatial practice and the logic of urban space. It defines the gender roles and the division of labour. In this case, the construction and organisation of the produce/grocery marketplaces create barriers for women to actively participate (see Bondi & Rose, 2003). This argument can be further strengthened due to the fact that the luxury and nonessential shopping such as clothes, conveniences, utensils, and appliances are predominantly done by the middle-class women as the markets and shops for these items are better organised, aesthetically appealing and safe for women to wander.

Reflecting on my participants' responses, the modern women often perceive shopping as liberating and empowering. It allows women to have a greater control over the household finance, savings, budgeting and many other decisions. This can be seen as an element of the newly negotiated role of modern middle-class women as some of my participants stated that they enjoy shopping for the family. Mrs. Sarkar, for instance, noted: "I like to do monthly grocery shopping. I shop according to my needs. But if I ask my husband to bring something, he will probably bring the whole market in the home." Further, Mrs. Nahar reported: "doing grocery myself allows me to handle and keep track of the monthly household budget and savings". At the same time, the masculinity of the marketplace and practices, however, has started fading gradually in Bangladesh due to the introduction of an increasingly global model of shopping malls, supermarkets, online shopping and home delivery facilities (see Traill, 2006; Ali, & Faroque, 2017). As Mrs. Nahar, further added: "The recent development of superstores in the city has promoted a hassle-free and hygienic environment for shopping the grocery and the raw items".

Though men predominantly perform the provisioning for food, their participation in housework is insignificant. The practice of traditional gender roles is strongly evident and persistent in men's participation in housework in middle-class households. Though the women are predominantly seen as the primary caregiver, nurturer, and responsible for household management regardless of their employment status (see Wajcman, 1991; Kay, 2006; Pew Research Centre, 2013; Croft, Schmader, & Block, 2015).), in the global North, there is significantly increased male involvement in the housework (Meah, 2014). Yet, men's participation in female-dominated tasks such as the housework is often not very promising compared with women's participation in the male-dominated jobs.

In middle-class Bangladeshi households, men do not have any fixed, routine tasks to perform on daily a basis. Men's participation in housework is voluntary, selective and occasional. Men tend to engage in housework in the instance of women's absence and unwellness, or sometimes to allow the wife to have a day off from the kitchen work. There are several tasks that men never do including washing, ironing, sewing, dusting and cleaning (Nowakowski, 2013). "Avoiding various routine chores is often justified by men being overburdened with the professional work. It is usually true but is it contradictory with the necessity to work at home by women, also those who are professionally active" (Nowakowski, 2013, p. 334). Men usually cook food as part of their own recreation process. Such patterns of male's involvement suggest that reproductive tasks, particularly cooking, are a lifestyle choice, or at times recreational for men, rather than a primary responsibility or routine work of feeding the family (Meah & Jackson, 2013). Men's involvement in the housework and food preparation is thoroughly captured in my female participants' comments. Mrs. Sarkar, for example, said:

Since my husband does not stay with us for his business, I have to take a lot of extra responsibilities. But when he stays with us for three to seven days or more than that, he does help me. He drops and picks the children from school; he does grocery and produce shopping; even he cooks sometimes as well. He cooks delicious food. Whenever he gets the time he helps me.

He does not have the mentality that male should not participate in the household tasks. He does not think that "Oh! This is a feminine job; I should not do it or as such.....". If I fall sick, my husband does everything.

Another participant, Mrs. Sultana, who is a working woman said:

Due to my husband's job nature, he is hardly capable of helping me out with the household chores. He has to work for long hours; he sometimes even brings office-

work in the home... It is not possible for him to assist me in household tasks even if he wants to. But on weekends and holidays, he spends time with the kids and does take care of them, which allows me to be relaxed a bit. He has the supportive mentality. If he gets time, he helps me in housework. For example, if he gets the time he does not allow me to enter into the kitchen which is very rare, though. He cooks very delicious *khichuri* (a mixed rice dish).

Drawing on the discussion above, middle-class femininity has been negotiated (see Karim, 2012) since, along with the traditional feminine roles, women to a large extent have started to intervene and participate in the masculine domains of everyday life. It subsequently suggests that modern, middle-class women have transcended the traditional role of being a performer of the household by becoming an active productive and reproductive agent. Besides the authoritarian role in the kitchen, women showed a great awareness, control, and authority in other aspects of domestic life, such as decisions regarding children's socialisation, study, and schooling, and managing overall household expenditure and savings. Yet, it is important to acknowledge that women's age and professional status seemed to have an impact on such authoritarian roles. Relatively young adult women with a professional career showed a lot more consciousness and powerfulness in making such decisions compared with that of the older and unemployed women. Whereas the masculinity is still widely embedded and restricted to its traditional roles of men being professionally successful and the provider of the family. Men's participation in housework is still very limited and casual. Thus, the newly negotiated femininity has evolved without subverting the traditional gender roles and the sexual division of labour. Instead, to emerge and progress, the modern middle-class women often turn to the lower-class/poor women - the paid domestic workers - for assistance in housework. I will revisit and detail this issue in Chapter 7.

6.3 The Level of Mechanisation in the Kitchen and Its Impact on the Gender Division of Labour

As delineated in the previous section, the kitchen in urban Bangladesh is far from being a democratic space. It is profoundly configured as women's territory. This section of the chapter will discuss the level and degrees of mechanisation of the housework and the kitchen, and if the automation has any impact on the gender roles and division of labour. In other words, if kitchen appliances have influenced or altered men's insignificant participation in the housework. This section focuses on design, appliances, and practices within kitchens in

middle-class households. As I discussed in Chapter 2, this research is interested in understanding the use of everyday technology as an assemblage of multiple heterogeneous entities. The kitchen can be seen as a typical example of such sociotechnical agglomeration. In explaining the sociotechnical dimension of a kitchen, Shove et al. (2007) argue that kitchen gadgetry is linked to changing expectations and desire, and/or the physical architecture of kitchens often encourages or restricts particular ways of things. “This broader view of materiality of everyday life raises significant questions about the intersection of design and practice, and especially about what this relation means for future oriented aspirations” (Shove et al., 2007, p. 23). Such a conceptualisation highlights an interplay between design, practices, objects, and aspiration of the kitchen, and how these components could be mutually constitutive. A focus on the interior and the design of the kitchen would illuminate the phase and issues related to the objectification of kitchen technologies by highlighting their placement, display, and access to them. As stated previously, objectification of technology is often depicted through the use of space and its placement in an aesthetically evaluated space (Silverstone, Hirsch & Morley, 1992; Silverstone, 1994, Kadi, 2013).

In contrast to the Northern idea of the scientific and open kitchen, in Bangladesh, the space for food preparation is still considered as a highly gendered and invisible site. The kitchen in the North used to be seen as a devalued, secluded and gendered space (Saarikangas, 2006; Meah, 2014). It has been revolutionised, rationalised, and mechanised after the Second World War, largely due to women’s increased participation in the employment and the Northern middle-class’ increasing inability to afford servants (Saarikangas, 2006; Meah, 2014). Women’s participation in the labour market and men’s participation in the household chores have turned the kitchen into a more democratised space within households (Meah, 2014). Reflecting on the subsequent socioeconomic change, the transformation of the kitchen and the changed gender roles in the North, Saarikangas (2006) noted:

The number of urban middle-class women working outside the home for wages had grown. At the same time, the growing middle class could no longer afford domestic servants. Consequently, the planning of functional and hygienic kitchens received more attention. The kitchen was transformed from an unplanned territory

of servants into a carefully designed workspace of the efficient (house)wife. (pp. 164-165)

Further, Shove et al. (2007, p. 22) argue, “No longer a back region devoted to the preparation of food, kitchens are frequently promoted and represented as a place of sociability”. The principle of scientific management and time and motion are applied to design a kitchen as a well-equipped workstation that saves time and labour (Johnson, 2006; Saarikangas, 2006). However, it is still debatable whether the mechanisation of the housework and adoption of labour-reducing technologies indeed lower the hours of women’s engagement with housework or not (Cowan, 1985; Wajcman, 1992; Nowakowski, 2013).

The kitchen in urban households in Bangladesh has gone through a transformation very recently as it shifted from a *sitting kitchen setup to a standing one*. The women needed to be seated to perform kitchen tasks such as cooking, cutting vegetables and washing dishes in the traditional system (see Banerji, 2013), which is still a normal practice in rural areas and the urban lower socioeconomic strata. Banerji (2013) noted that the grounded cooking and kitchen arrangement reflects the dearth of furniture and equipment in the kitchen. Pointing out the differences in the dominant postures, practices, and design of the kitchen in the global North and the South, Banerji (2013) argues:

How big is the difference between sitting and standing? A cultural universe, when you examine posture in the context of food preparation. In the kitchens of the West, the cook stands at a table or counter and uses a knife. But mention a kitchen to a Bengali, or evoke a favorite dish, and more often than not an image will surface of a woman seated on the floor, cutting, chopping, or cooking. (para. 1)

The dominant practice and posture of *sitting* in traditional Bangladeshi kitchens are linked to a set of non-automated, local implements and technologies including *bonti / boti* for cutting vegetables, *shil-pata* for grinding spices and so forth. Despite the rapid penetration of global technologies and appliances such as knives, peelers, chopping boards, slicers, electric grinders

and mixers, some of these old, conventional kitchen implements (see Figure 5.3 & 5.4) are still used in urban kitchens (Banerji, 2013).



Figure 11: The old urban Bangladeshi kitchen

Photo Retrieved from <http://www.alamy.com/stock-photo-woman-preparing-food-on-floor-in-bangladesh-kitchen-25036496.html>



Figure 12: Traditional implements and tools in Bangladeshi kitchen. Bonti/Boti (top): This curved blade is used to peel, cut and slice vegetables. Shil-pata (bottom): These two pieces of stones are used to grind the spices into a thick paste.

Photos Retrieved from <https://en.wikipedia.org/wiki/Boti>

<https://journals.worldnomads.com/aratrika/photo/46230/1016325/India/Grinding-the-ingredients-on-a-traditional-grinding-stone-or-Shil-Nora>

In describing the recent transformation of the urban kitchen, my respondent, Mrs. Saba, noted:

Only very recently we have moved from a sit while cooking arrangement to a stand while cooking. Ten to fifteen years back, there was kitchen which had no provision to stand while performing tasks such as cooking, washing dishes, cutting the vegetable. There used to be a hearth or a gas burner on the floor of the kitchen; even the dishwashing space was on the floor; there was no kitchen slab or counter in the rental apartment or the house so that you can stand while cooking.

Further, Mrs. Rokeya explained how some of the traditional implements are still in use along with the adoption of new electric and nonelectric gadgets:

Our mothers and aunts used to use traditional tools such as boti, shil-pata, haman-dista and much more... Now we cannot save our life without having a chopping board and knives, grinder and mixer... Having said that I still have boti in my kitchen. It is useful for chopping large fishes, meat etc. Moreover, if you rely on the maids, you have to have a boti in the kitchen. They cannot handle a knife and chopping board.

Women were seen to play an active role in adoption and accommodation of small kitchen gadgetry. It is widely accepted within everyday domesticity that women have a better understanding of necessity, purpose, and function of the kitchen technologies than that of the men. As Mrs. Rahman noted, "I am responsible for managing kitchen; thus when I asked for a big spacious fridge with a large deep freezer, and it was purchased accordingly." She further reported that the decisions of purchasing relatively low-cost kitchen appliances such as a food processor, electric kettle, or induction stove are independently made by her. Sometimes the men of the households are not even informed of those purchases and expenditures. Mrs. Rahman said:

I usually make the purchase decision of small and low-cost kitchen appliances. My husband does not have any role to play in it. He does not even know about it sometimes... What I feel necessary for the kitchen or managing the household, I purchase it... For example, recently I bought a food processor; my husband does not even know where the fund comes from for such purchase. I try to save my pin money, or sometimes I manage to do some cost cutting in monthly nonessential expenditures such as clothes, and accessories. These savings allow me to budget, plan and purchase small kitchen appliances and implements. I do not like to inform him regarding such small things. Having said that, yes, if the purchase involves high cost, I have to discuss it with him before making any decision.

Despite its functional significance in everyday life, the kitchen is the most devalued and neglected space in the households. This is largely due to the lack of democratisation of the space; men's negligible contribution to the housework, as discussed in the previous section, and the devalued status of women's reproductive tasks. As Saarikangas (2006) notes, the negligence of kitchen space reflects the devalued status of women's unpaid domestic labour. Further, Conran (1977) argues that "kitchen mirrors more effectively than any other room in the house the great social changes that have taken place in the last hundred years" (p. 1). Thereby, the invisible, separated and gendered kitchen often illuminates the existence and practice of traditional gender roles and the division of labour in the households. The kitchen in the urban house, particularly in the newly built apartments, is very congested and the most poorly designed part of the household. The architecture and the facilities of the kitchen are understated compared with any other parts of the household. The insufficient space, air circulation and light, and lack of chimney and exhaust system in the kitchen make the housework tedious for women. The undervalued status of the housework and the nonconduciveness of the kitchen space is captured in some of my participants' comments in the following manner:

In summer, it becomes so difficult to spend long hours in the kitchen to continue. The summer is extremely hot and humid in our country. In addition, the kitchen is not spacious with proper air circulation. I have migraine problem. If I continue to work for a long time in the kitchen in summer, I often get the migraine attack. (Mrs. Akhtar)

We do not have a modular kitchen set up. We, therefore, do not have a fixed space to accommodate them (kitchen appliances). For example, I keep my food processor and electric kettle inside the cabinet. I take it out to plug in the dining area when I use them as I do not have enough space in the kitchen. A few days ago, I wanted to make juice. I wanted to plug in my blender placing on the dining table. But then I realise that the power cord of the blender is not long enough to reach the electric port if I place it on the dining table. Thus I had to use an extension cord to use it... It is a hassle... (Mrs. Karim)

During the planning and designing of my apartment, I was not involved in the process at all. Now while performing the everyday kitchen work, I feel like I should have been involved in the process... My husband planned everything, but he barely had any clue about the kitchen work and the facilities required for them. My kitchen is the most non-facilitative place in the household I feel... Look at the interior and facilities of the other parts of my household. We have used expensive tiles, fittings, and paints all over the house but there is no cabinet or storage system, no chimney or exhaust fan in my kitchen. Moreover, it is too congested... (Mrs. Saba)



Figure 13: The new urban middle-class kitchen in Bangladesh

Photo Source: The photos were taken by the researcher in the participatory households

The anecdotes above reflect that the kitchen has a low level of mechanisation. It lacks the provisioning and the facilities of a modern scientific modular kitchen, which is designed to promote efficiency in food-related tasks. Johnson (2006) noted, since the spatial arrangement of the scientific kitchen is designed based on the repeated analysis of time and motion studies, it saves time and effort of household chores. The time and motion study of kitchen-related tasks suggests that there are three major work centers within the kitchen: food storage, dish washing area and the cooking space (Johnson, 2006, p.125-126). These three important spaces construct a triangle that links to secondary areas, such as working surfaces and general storage spaces. The aggregated walking distance between cooking, dishwashing and storage areas should not be more than twenty feet. This pattern of spatial organisation of a kitchen ensures efficient movements between spaces, which saves time and labour (Johnson, 2006). A majority of my participants pointed out that if the kitchen design had been advanced and scientific, it would have saved a lot of time and effort, and would have made the daily reproductive tasks less strenuous. As Mrs. Sultana suggested, “I have to do a lot of extra walking and moving while preparing food as things are not organised in the kitchen, which makes me very tired sometimes.” The ill-designed kitchen also creates constraints in the adoption and domestication of modern kitchen devices, as noted by Mrs. Rahman. It also has an impact on the placement and objectification of kitchen technologies, as Mrs. Karim pointed out how not having a modular kitchen and a slotted space can make it difficult to accommodate

certain kitchen appliances. The placement problem might also end up contributing to the functionality and daily use of the technologies. It also reiterates and highlights the point I made in Chapter 4 that the infrastructure can facilitate as well as impede the adoption and integration of certain technologies in everyday life.

The poorly designed kitchen perhaps also suggests women's lack of agency and participation in substantial economic decisions and managements, such as investing, planning or purchasing a house or property. As Mrs. Saba noted, she was not informed and involved in the process of planning, designing or purchasing of the house; it was entirely supervised by her husband. The negligence and under-equipped kitchen signify men's seclusion and nonparticipation in kitchen work as well as their inability to apprehend the significance, issues, and requirements of the kitchen work. The men do not realise the importance of having a well-equipped kitchen that can save time and labour for women. Men execute, manage and make decisions about the household's wealth and substantial economic activities. It implies that although women tend to show a greater control, agency, and resistance in some aspects of the management of the domesticity, men still predominantly steer the household.

The technological intervention into the housework has impacted the household gender relations and dynamics in two major ways: "... technology endorses women's autonomy by promoting the degendering of domestic chores, while the second prospect is quite the opposite: the reinforcement of customary patterns in which women are responsible for the most part of household work" (Schouten et al., 2010, p. 2). The feminist critics argue that the mechanisation of the housework has failed to remove the gender inequality in household tasks (Cowan, 1985; Wajcman, 1991). It has rather reinforced and fortified the traditional gender role of women being the primary carer and nurturer of the household. Wajcman (1991) argues that labour-reducing technologies have firmly tied women into this traditional role. This is because the introduction of technology in the kitchen largely fails to encourage men's participation in household tasks. "Domestic technology has thus been designed for use in single-family households by a lone and loving housewife. Far from liberating women from the home it has further ensnared" (Wajcman, 1991, p. 87). In addition to these impacts, in some cases, the technologies replace servants and paid domestic workers. I will revisit and elaborate on this issue in Chapter 7.

For Wajcman (1992), "... although domestic technology did raise the productivity of housework, it was accompanied by rising expectations of the housewife's role which generated more domestic work for women" (p. 84). The mechanisation has raised the standard and expectation of hygiene and cleanliness, and women are pressured to maintain the standard irrespective of their employment status (Wajcman, 1992; Mennel et al., 1992; Saarikangas, 2006; Meah & Jackson, 2006; Nowakowski, 2013), which is reflected in my participant, Mrs. Akhtar's comment. Mrs. Akhtar explained how the installation of a washing machine has increased the frequency of doing laundry in her household. She noted: "After getting the washing machine, the frequency of doing laundry has increased in my house. I have to run the machine almost every day to wash clothes now. Previously, it was only once in a week, we used to do the laundry". Thus, reportedly the adoption and integration of so-called labour-saving technologies such as washing machines, food processors, grinders, and microwaves has contributed in lowering the physical workload of the women, but extended the overall duration of women's engagement with housework (Wajcman, 1992; Mennel et al., 1992; Nowakowski, 2013).

Schouten et al. (2010, p. 4) suggest that the automation of housework is atypical as mechanisation is not synonymous with masculinity. Femininity, rather, is firmly tied to the mechanisation of housework as it reinforces and fortifies women's engagement with reproductive work (Wajcman, 1992; Mennel et al., 1992; Saarikangas, 2006; Meah & Jackson, 2006; Nowakowski, 2013). Thus, the "labour saving" technologies are almost solely handled and accessed by the women in Bangladeshi households. The integration of labour-reducing technologies into the kitchen has not significantly impacted or transformed the gender roles or male's participation in the housework. The adoption of these technologies, rather, eases men's effort and labour in running the kitchen or food preparation in women's absence, as mentioned previously in this chapter. Men reported that having access to gadgetry such as rice cooker or microwave makes it easier to manage food preparation when they are compelled to do it in women's absence or illness. Eighteen-year-old Imtiaz, for example, noted that he has to cook only when his mother choose to go for a holiday, and he finds the rice cooker very handy to cook rice. He said: "It is easy to manage with the rice cooker when my mother is not at home; it saves time, plus is easy to get the measurement of the water right... I do not have to check the rice multiple times...".

The low level of automation of the housework highlights an uneven and intermittent level of mechanisation into middle-class Bangladeshi households. While there is reportedly a high level of penetration of ICTs and media technologies into households (see Chapter 4 and 5), the mechanisation and rationalisation of the kitchen are relatively slow. The kitchen could be seen as an impeccable example of splintered urbanisation and uneven infrastructural expansion. The design, practice and level of mechanisation of the kitchen suggest a coexistence and combination of global and local, modern and traditional elements. The kitchen gadgetry involves modern technologies such as grinders, mixers, rice cookers, and microwaves. At the same time, there are the practices and use of local traditional instruments such as *boti*, *shil-pata*, and so forth. The gradual integration of modern appliances and the shift from a grounded kitchen setup to a standing one is indicative of how the aesthetics and desire for a kitchen in the middle-class Bangladeshi household is catching up with the Northern model. But yet, they are far from getting access to standardised facilities and provisioning for hot and boiling water, or a chimney.

6.4 Gender Politics of Computing, Connectivity, and Receptions

Technologies are prone to produce knowledge and power once they are adopted and incorporated by the users (Aaltojärvi, 2012). Thus, the gender politics and hierarchy are often played through technological consumption and usages (Cockburn, 1992; Livingstone, 1992; Halford et al., 2010; Aaltojärvi, 2012). This section of the chapter will focus on the symbolic association between gender and ICTs, and media technologies such as television, computers, the Internet and mobile phones. In particular, it discusses how certain technology and technology-related skills and activities are perceived as masculine and/or feminine in middle-class Bangladesh households. The chapter also focuses on how gendered power is practised and claimed through the consumption and usage of these technologies.

6.4.1 The Masculinisation of Microelectronics and Computing

The early feminist analysis of technology tends to perceive technoscience as essentially patriarchal and a new form of male domination against women (see Wajcman, 2004). Modern technology, particularly the technologies of human biological reproduction were seen as a masculine, patriarchal project to control the processes of women's pregnancy and childbirth (Wajcman, 2004). Technofeminism, however, has moved from a radical pessimism to a new

optimism where technology, particularly the information communication technologies, are seen as resources that empower women and transform gender roles (see Berg & Lie, 1995; Wajcman, 2010). The revolution in microelectronics and digital technology has shifted the notion and imagery of technology from heavy industrial machinery to sophisticated, standardised gadgetry and software, from physical force to intelligence and acumen. Technofeminists, more precisely cyberfeminists, therefore, responded to the uprising of microelectronics and cyberspace with euphoria. For example, reviewing Sadie Plant's (1998) work, Wajcman (2010) notes: digital technology contributes to blurring the line between humans and machines, between men and women, by allowing the users to disguise or alter their identities. "Industrial technology may have had a patriarchal character, but digital technologies, based on brain rather than brawn, on networks rather than hierarchy, herald a new relationship between women and machines" (Wajcman, 2010, p. 147-148). In short, arguably, the microelectronics and the Internet blur the gender difference in usage of and access to ICTs. Though the early adopters of the mobile phone and the Internet were predominantly male, the recent research shows that the gap is very narrow in Northern contexts (Weiser, 2000; Ono & Zavodny, 2003; Hargittai & Shafer, 2006; Wajcman, 2007).

The optimism about the relationship between microelectronics and gender perhaps is context specific and may not be universally applicable. This is because gender disparity and stereotypes over the use of ICTs are still wide and persistent in the middle-class households. The access to, and usage of, domestic ICTs are male dominated. Men were seen to have greater engagements with, and diverse use of, digital and cyber technologies such as a computer, mobile phone, and the Internet, compared with women. Men's use of ICTs were intense, diverse and advanced. Men use ICTs for job-related purposes; for information retrieval, communication, as well as entertainment. The middle-class men enjoy exploring and experimenting with new applications and software. They like to repair, fix and upgrade the technology more frequently than women, to show their mastery of the technology. Moreover, men spend hours with ICTs for entertainment purposes. The male participants reported the use of ICTs for a wide range of activities, such as using social media like Facebook, Twitter, Chat Messenger; downloading and watching movies, videos, and music; online shopping; money transfer; reading the newspaper and blogs, and navigating information related to their job and everyday mundane activities. One of my participants, Mr. Rahman's anecdotes captures men's obsession and pleasure with ICTs, and how they tend to develop a functional dependency with it. He noted:

I use the Internet on desktop, laptop and mobile phone. If I need any information related to my profession or anything else, I retrieve that from the Internet. I even, use the Internet to retrieve information about basic medical problems such as cold, fever, and headache. You can now probably get any information and solution to your problem on the Internet. But then again, there is a risk associated with it as well... You may get a lot of different and contradictory information; you then need to use your reasoning ability to choose the best solution. I consider the Internet as a 24/7 support. It provides a solution to a lot of my personal and professional problems.

Another participant, Mr. Ahmed, said:

Mobile phone and the Internet are the most important technology for me. I cannot function properly without these two on an everyday basis. Even if I left my phone at home and went shopping for half an hour, I feel like I am incomplete and I am disconnected from everyone. If I forget to take my mobile in my workplace, I feel like I cannot do or accomplish my routine task properly; I feel like I am in danger.

Men's pleasure and playfulness with technology are linked to gendered socialisation and children's play (Kleif & Faulkner, 2003). Kleif and Faulkner (2003) argue that "... boys are more likely than girls to be socialised into hands-on tinkering with mechanical devices. This is evident in the toys boys are encouraged to play with at home..." (p. 297). Men's engagement with technology, particularly ICTs, perhaps make them feel powerful and allow them an opportunity to play (Kadi, 2013). On the contrary, women seldom indulge in pleasure, entertainment, and playfulness from digital engagement. Women's engagement with ICTs is predominantly instrumental and task oriented. In a study, Simone Yates and Karen Littleton (1999) showed that due to the gendered nature of socialisation and children's play, the same computer task was performed by boys a little better than girls when the task is contextualised and coded as a game, whereas there was no gender difference in performance when it was encoded as school task. Following Yates and Littleton (1999), Kleif and Faulkner (2003) argue that "... women perceive fun with technology as a gender-inauthentic pursuit and that they need to legitimise or justify their leisure activities more than men do" (p. 310).

The responses of my women participants seemed to reproduce and resonate the analysis and findings of the previous studies as the majority of them reported the task-oriented use and consumption of ICTs on a daily basis. The middle-class women were largely seen to develop a set of job-related skills and usage of ICTs. Women tend to use the Internet instrumentally as a tool for activities such as work and study, while men were more likely to play with the technology and like to master the technology (Singh, 2001). The use of ICTs by the non-

employed women ranges from being complete nonusers to users of social media. On the contrary, the working women reportedly used the computer and the Internet predominantly for retrieving job-related information, maintaining official communication via e-mail and skype, and using social media such as Facebook, and Blogs. For example, Mrs. Sultana, a university lecturer, noted that computers and the Internet are an integral part of her everyday life. She needs the assistance of the ICTs to prepare lectures and do research. Another participant, Mrs. Ahmed, said:

I am an English language trainer... I have to prepare and conduct the language training session... the computer and the Internet are thus very central to my everyday life... they are a great help for preparing my Power Point presentations. I am a very limited user of these technologies though... I do not use the computer for any entertainment purpose as such. This is because I do not have much time to spend with the computer after managing my office hours and the household tasks. But my husband and kids have completely different usages of ICTs. My kids play games or listen to music on the computer. Sometimes my husband downloads movies from the Internet, and we watch that together.

As noted earlier, gender and technology are coproduced and neither of them is primary (Faulkner, 2000, 2001; Aaltojärvi, 2012); the production and reproduction of gendered technology are embedded in the social mechanisms. The gender stereotypic representation of technology is often rooted and reinforced through schooling and socialisation processes. Shifting from the radical feminist notion of technology as inherently patriarchal, Judy Wajcman (1991) focuses on the social mechanism that initially turned technology, particularly digital and virtual technologies, into a masculine domain. Wajcman (1991) argues that the social mechanism such as the culture and “hidden curriculum” of school reinforce and reproduce the stereotypic representation and construction of computing as a masculine expertise. Wajcman (1991) further explains that the computer, a new technology then - which may not naturally fall into the pre-existing gendered differentiation and categories of technoscience - initially got integrated into the masculine culture due to the tendency of the school to link computer studies with subjects like science or mathematics, which are typically known as male-dominant subjects. Computer studies is usually taught by the mathematics/science teachers in schools. However, it is now widely noted and accepted that competence in mathematics is not a cue of “aptitude” (Wajcman, 1991; p. 152) for computing expertise.

Further, the rooted sociocultural attitudes about the role of women in society, particularly in the global South, often reproduce women’s negative self-perception, inferiority, and

disengagement with digital and cyber technologies (see Antonio & Tuffley, 2014). The reproduction and representation of gender stereotypes in technology are profoundly significant to the user's self-perception of technological knowledge and expertise. Construction and reconstruction of computing and cyber technologies as masculine often create a negative self-perception among the female users of ICTs about their technological expertise and skills. For example, Wajcman (1991) noted that girls often tend to believe that boys retain some inherent qualities of being able to drive cars or handle machinery, which they lack. Such self-perception of gender identity often hinders women's participation and performance in typically known masculine activities, such as computing and Internet use. Several studies (see Brosnan, 1998; Brosnan, & Davidson, 1998; Torkzadeh & Van Dyke, 2002; Hargittai & Shafer, 2006; He & Freeman, 2010) have shown that women are much more likely to report a lower self-assessment about their computing and Internet use skills. Woman's undermined confidence in learning and using a computer is thoroughly captured in one of my participants, Mrs. Choudhury's comment. She noted:

We have the Internet-connected desktop and laptop at home, which is used by my husband and my son. I do not use them... I have no idea about the computer and the Internet because I do not need them. I am not employed and therefore, I do not need to use a computer or the Internet. I have not ever tried my hand in computer ... I think that it is too complex as a technology and it requires a lot of time to learn how to use it. I remain very busy with household tasks. I do not have spare time to spend on that.

Dijk and Hacker (2003) noted that access to ICTs is dependent on four factors: psychological, material, skills, and usages. The psychological factor refers to user's disinterest and negative attitudes towards digital and cyber technologies. Material access involves not having the possessions of the technology. Skills access relates to not having the technological literacy, and the usage access refers to the lack of time and opportunity to engage with digital resources. Mrs. Choudhury's statement above shows that material possession of the digital resources does not necessarily imply having access to or use of it. In particular, despite having the material access to digital resources, the users can be disengaged with ICTs in everyday domestic life due to the negative attitudes, lack of skills and the time for using them. Women's lack of digital engagement due to disproportionate involvement with housework is a widely noted issue (see Antonio & Tuffley, 2014), particularly in the context of the rigid traditional gendered division of labour. Though the majority of my female participants noted "limited leisure time" to engage

with the digital resources, the women were largely seen to routinely engaging in television viewing as a major pastime activity. I will revisit this issue later in this section.

Though some women reportedly had advanced skills and knowledge of ICTs, the men claimed the mastery and pride of being technologically advanced compared with women. The men frequently noted their mastery in computing and women's lack of competence to play with the software or fixation and repair of those technologies, including the installation of the operating systems or fixing virus attacks on the computers. Men showed a conscious, patronising attitude of the fact that even the women who use computers and the Internet on a daily basis and/or have developed a high set of skills in navigating information and communication, often need men's assistance when technology goes unruly. Mr. Azad, for example, said:

My wife likes to work on her own with the computer and the Internet. She mainly uses it for job-related purposes. But she is not yet an advanced user of the technology. She does not know how to fix software if it goes wrong or if there is malware, or if there is a requirement of installing the operating system. She needs to ask for my or my son's assistance in this case.

Another participant, Mr. Rahman, noted:

My wife uses kitchen appliances better than I do. I think she is an advanced user of the appliances such as grinder, induction stove, and so on. I am not as good as her in using them... I cannot use the induction cooker properly. She does it better... Having said that, I will not say that she has the same level of expertise in using ICTs such as a computer, and the Internet. She is perhaps not an advanced user of them... She asks for my help sometimes if she is in a fix.

Mr. Azad's comment highlights the stereotypical gender divide of technological expertise. At the same time, it reflects the condescending attitude of the middle-class male over the use and mastery of computing technologies. Mr. Azad's comment also illuminates the findings of Cynthia Cockburn's (1985) study, as she said that women do not have control over the technologies that they use. She particularly mentioned kitchen or labour-saving technologies that are mainly used by women, but women have to depend on men if the technology goes wrong. Cockburn (1985), therefore, argues that substantially it is men who have the control of women's domestic technology.

The control, mastery, and pleasure of technology are linked to exercising power. Kleif and Faulkner (2003, p. 312), for instance, suggest that the pleasure in technology acts as a symbolic

compensation for a perceived or experienced lack of power. Reflecting on the enduring and quintessential relationship between masculinity and technology, Faulkner (2000) argues that men's pleasure in technology often compensate their perception and experience of powerlessness in other aspects of life. It perhaps resonates as a paradox considering men as a historically powerful group; however, while men as a group hold and exercise power, most do not feel powerful individually (Faulkner, 2000, p. 91). Thus, gaining the mastery of technology and obtaining power through it is a symbolic indemnity of powerlessness for men. Bangladeshi men demonstrated claiming power and superiority over the use of ICTs. But this pleasure and power claim over technological mastery is often used by women to overturn the power game. An example of such superior power and mastery by women is captured in Mrs. Fahmida's comments. She stated how she was tempted to enjoy the moment when she knew the solution to the problem her husband was trying to figure out. She noted, "As I regularly use Microsoft Excel at my work, I am quite familiar and expert in it. One day, I found my husband in trouble with the Excel Sheet. He was trying really hard... to be honest, I was enjoying it and I decided not to offer any help unless I was asked to do". She then explained that it was her moment to show that she knows a thing or two about Excel and she knows it better than her husband does. This quest for acquiring and exercising power over the use of domestic technologies exemplifies the powerfulness of technology itself. The problem solving and transformative nature and the ease it offers in day-to-day activities turns it into a powerful object and symbol. The symbolic association of power, pleasure and technology was also evident in the relationships between middle-class madams and maids, which I will detail and analyse in Chapter 7.

Though domestic technologies are used by both men and women, they are used differently with different interest, orientations, intentions, and goals, and thus, comprehended differently (Livingstone, 1992, p. 117). For Berg and Lie (1995), "Because of the sexual division of labour, women and men not only use different technologies but use the same kinds of technology differently and have unequal access to training and information" (p. 337). Kadi (2013) also argues that gender and the gendered division of labour play an important role in structuring the everyday use and practices of technologies.

There are three discursive themes through which people ascribe gender to technologies: 1) expertise discourse - who understands, maintains and supports the gadget better, 2) appearance and sound discourse - dividing technology into masculinity and femininity by their

looks/appearance, and 3) routine activities discourse - who uses the technology most frequently (Aaltojärvi, 2012, p. 216). My fieldwork suggests that in middle-class households, gender identity is ascribed in technology largely based on the routine activities, and expertise, and access to it. Based on the sexual division of labour, kitchen appliances and labour-reducing technologies are predominantly seen as feminine, as discussed earlier, while ICTs are largely perceived as masculine in Bangladeshi households. For example, in conversation, the majority of my female participants emphasised and identified kitchen and food-related devices such as the refrigerator as the most important technology. It is reported that it would be difficult for women to perform and maintain routine household activities without a refrigerator. As one of my female participants, Mrs. Rahman, said: "... for me, the refrigerator is the most important thing. I cannot function without it... The men do not realise the importance of it... Preserving raw and cooked food items are the extension of my cooking responsibility".

On the contrary, most of the male participants recurrently emphasised the importance and functionality of the Information Communication Technologies such as mobile phones and the Internet. Such patterns of emphasis reflect the gender division of labour and responsibilities. The responses of my participants mirrored the findings and analysis of Kadi's (2013) research based in the UK, as she reports that the female participants of her research repeatedly emphasised the importance of technology related to housework and cooking in their everyday life. Women's emphasis and enthusiasm about kitchen gadgetry and men's about ICTs demonstrate the reproduction, reinforcement and perpetuation of traditional gender roles and the division of labour (Kadi, 2013, p. 103-104).

6.4.2 Feminisation of Television Viewing

The women were witnessed to have a frequent and regular engagement with television. Women's frequent and enduring engagement with television turns it into a feminised leisure and entertainment activity. The feminisation of television happened long ago in the North. Despite the male dominance in the production and management of television content and its "masculine bias" or patriarchal ideologies, it has been feminised (Jermyn, 2013, p. 73). In the North, women played a significant role in integrating television into domestic spaces and routines (Jermyn, 2013). The similar practice can be suggested about middle-class women in Bangladesh as most of my female participants voiced that they secured the control over the

television remote control. The remote button is under their control from the early evening until late at night.

The early technofeminist critiques suggested that television viewing reflects the existing domestic power structure and the gendered and generational dynamics of the household (see Morley, 1986; Wajcman, 1991). Due to the traditional sexual division of labour, the home is seen as a leisure space for men where they like to enjoy watching television peacefully with full attention (see Morley, 1986; Wajcman, 1991; Livingstone, 1999). Thus, the men used to have the control of the television remote and decide what should be watched. But the dynamics have changed over the years largely due to the feminisation of television prime-time during the late 1990s in the North, which involves increase visibility of female experiences and daily soaps on television (see Ball, 2012). For Ball (2012, p. 248), television is derogatorily constructed as a feminine medium. Ball (2012) notes: “Its associations with ‘the feminine’ are evident in terms of the genre which defines it (the quintessential soap opera); the viewers who consume it (women); the contexts in which is it viewed (domestic)...” (p. 248).

The feminised and often derogatory connotation of television viewing was discerned in some of my male participant’s comments. For example, Mr. Junaid said:

“oh! Don’t ask... if it is evening and the kid’s tutor is here to assist him with the study, you will find her (wife) glued to the TV. She is kind of obsessed with the daily soaps and the reality TV show... women are like that. I find it so irritating and annoying at times... how could you watch those same old, predictable stories again and again?”

Further, Mr. Nawaz stated:

TV is always seized by women in the evening. You cannot even the get to watch if there is any sports or something interesting going on... to be frank, I do not need to anymore as I could watch sports or any other news updates online these days... TV belongs to the kids and the women of the house now I think...

The women, on the contrary, noted that when men tend to spend long hours outside of the home and the children are busy with study, television viewing is the most easily accessible recreation and leisure activity for them. As Mrs. Sultana put it:

My husband returns home quite late, children usually get busy in studying in the evening and I am done with my household's chores... what should I do then? I get bored... I enjoy watching TV... But you know what... I have often been ridiculed by my husband for watching TV too much. He thinks I am addicted to it.

Another participant, Mrs. Ahmed, stated:

It is very common for men, particularly for young men, to spend time outside the home and hang around with friends after they return from work. Thus, the evening TV concept does not work for them. It is women who usually watch TV in the evening. Men come back late and we all have dinner together around 9:30 or 10 pm. We sometimes watch something on TV while having dinner which allows us a brief family time and to kids, a break from study or you may say a reward after studying... My husband sometimes then watch the news or talk shows before going to bed.

Mrs. Ahmed's husband, Mr. Ahmed, noted:

I started watching TV more as I am growing older. When I was young, I used to spend a lot of time outside the home. I used to hang out with my friends after the office hours. Now I stay at home after the office hours mostly.

Despite women's disproportionately enduring and intense involvement with housework, the middle-class women tend to spend long hours in viewing television compared with men. However, there was a significant difference seen in the pattern and duration of television viewing between employed and nonemployed women in this study. The employed women often reported less viewing time due to the double burden of managing professional life and households. However, for women, television viewing is the most easily accessible entertainment and recreation. It is also indicative of how the leisure activities are predominantly domesticated for women as well as for children in Bangladesh (see Chapter 5), which in turn embodies the reproduction of the gender and space binary (the public and the private) in the local culture. At the same, it can be argued that the pattern of watching television does not reflect the traditional power structure and gender relation of the household anymore, at least not in the urban middle-class contexts of Bangladesh. The conflict and tension over the "TV remote" have been resolved largely due to easy, multiple access to digital screens in the house.

Due to multiple access points of personally owned technology and the Internet connectivity, the traditional notion of "family television" is rapidly declining in urban middle-class Bangladeshi contexts. This pattern of television viewing is already an established norm in the

Northern contexts (see Livingstone, 1999). The access to a computer and the Internet connection in the home has reduced the attention to, and demand for, television screens to a large extent. While women enjoy their favourite daily soap or reality show on television, toddlers or preschoolers can enjoy the animated movies, cartoons or games on the home computer. The husbands have the opportunity to enjoy their preferred programmes such as movies, sports, news or talk shows on the laptop, desktop, tablet or smartphone. For example, Imtiaz, an 18-year-old engineering student, noted that he has had no involvement with the family television for the last couple of years. He said, “I am only fond of movies and sports, which I watch on my laptop. So, it does not really matter to me what is being watched on the TV in the living room...”. The patterns, preferences, and priorities of television viewing in the middle-class household are thoroughly captured in some of my participants’ statements.

Mr. Rahman stated:

There are different kinds of preferences and demands based on generation... Naturally, my kids like to watch cartoon channels on TV. As long as the kids are watching TV, we (he and his wife) barely get a chance to watch anything else. When they are asleep, or if they agree, then we get a chance to watch something as per our preferences. After kids, the second priority is my wife. She likes to watch daily soaps. My priority is nearly zero. Honestly speaking, I do not get that much time to watch TV and do not usually give priority to my preference. Yet, whenever I get a little bit of chance, I watch the news, and that is of course late at night before turning the TV off for the day.

Mrs. Nahar described:

My kids are four and six years old, and their preferences are given priority when it comes to watching TV. If they wish to watch a cartoon on TV, I follow the same. When the kids do not watch TV, I usually enjoy my favourite programmes... My husband is not very keen on viewing TV... he watches movies on his laptop; sometimes I do watch with him. He sometimes does follow the late night news and talk shows on TV, though...

Further, Mr. Kabir said:

The pattern of watching TV has changed. It used to have a different appeal as a family past-time, which has declined now, I believe. Earlier, we did not have any other options but to watch the national broadcasting channel BTV (Bangladesh Television). There used to be lots of good quality programmes including drama serials, some of them are really famous and popular till date. People used to enjoy those programmes sitting together with families... But it started changing since we got access to different foreign channels due to satellite... Even in Bangladesh, there are so many private channels now. Availability of so many different channels and

different programmes has changed the pattern of watching TV. Now different members of the household have a different preference for a TV programme. Watching TV is no more a family past-time, it has rather become a secluded, individual leisure activity.

The statements above exemplify that most of the television viewing hours in middle-class Bangladeshi households are occupied by women and children. Children's, particularly the toddlers' and the preschoolers', preferences are prioritised over the others. This is largely due to parents' attempt to use the television as a *supervising and engaging arrangement* (see Clark, 2012), as discussed in Chapter 5. As the children grow up to late teenagers and achieve access to a personalised screen such as a laptop or desktop, they get disengaged from the television. Thus, the notion of family television has been largely transformed into an individualised entertainment and leisure activity due to multiple access points in the households. The decline of the notion of family television or the access to multiple screens also illuminates the "incorporation" phase of technologies, as it reflects how the integration and existence of several digital screens have structured and redefined the daily routine differently. Television viewing has predominantly become a feminised and fragmented leisure activity in middle-class households.

The comments from the participants also illuminate a fair picture of daily routine and structuration of activities in a typical middle-class Bangladeshi household - who does what in the evening and how other domestic practices such as the family dinner shapes television viewing. In other words, the comments above highlight the incorporation phase and moments of television into the day-to-day routine. The women predominantly watch television in the evening while men are usually outside or tend to use a different access point to enjoy their own favourite content such as sports, news and talk shows. Men often hang out outside in the evening after office hours and the households usually have a late dinner upon the men's return at home. The dinner often coincides with viewing television. This is marked as a little brief family television time, which some of my participants pointed out as a reward and refreshment session for the children after study.

6.5 Chapter Summary

When looking at the aspiration and appropriation of digital and cyber technologies, middle-class Bangladeshi households might not be perceived as very different from a Northern middle-class household. But when gazing into the kitchen, its practices and the level of mechanisation, certain structural and infrastructural differences are discerned. The differences illuminate sporadic infrastructural development, a highly gendered practice of housework, and a unique blend of modern, transnational as well as local traditional appliances and instruments. in Bangladesh. The soft relativist approach that I developed in this research helped to illuminate and to comprehend such unique composition of transnational and local elements and practices in the middle-class households.

Following the debate of mutual determination of gender and technology, it is observed that technology, particularly the adoption and incorporation of kitchen gadgetry, largely fails to redefine and alter the gendered division of labour in the middle-class households. Women are profoundly held responsible for reproductive tasks and housework regardless of their employment status. Thus, the kitchen remains a gendered, devalorised, and discrete space with a low level of mechanisation and advanced facilities. The devaluation of the space, on the one hand, indicates the deflated status of the food-related reproductive tasks. On the other hand, it suggests women's exclusion from substantial economic decisions such as planning and designing houses. Yet women tend to play an important role in the adoption, objectification, and incorporation of kitchen appliances. The access to kitchen appliances is restricted to women, which fortifies women's traditional gender roles. Domestication of kitchen devices creates a desire and expectation of modern women being able to balance the productive and reproductive roles rather efficiently. It thus contributes to reinforcement and reinvention of the image of modern middle-class Bangladeshi womanhood, which has been described by Karim (2012) as "a new progressive femininity of being economically productive and yet retaining traditional gender roles" (p. 57). At the same time, women's active role in adoption, incorporation, and objectification of kitchen appliances illuminates that gender has an impact on domesticating particular technologies for certain self-interests and desires.

On the contrary, ICTs such as the computer and the Internet are predominantly linked to masculinity and masculine power. Digital and cyber technologies are often perceived as

apparatuses for securing and exercising power and pleasure between men and women. The knowledge, skills, and mastery of ICTs are used to play-off gender relations. While men tend to claim and retain masculine superiority through technological expertise, women attempt to gain skills to resist men's mastery, turning them into independent users. Such an adaptation of technology highlights the conversion phase where the users often attempt to adopt and integrate technology in a way to reproduce their positions, privileges and status (Kadi, 2013).

However, the consumption and use of ICTs often tend to reinforce and perpetuate the traditional gender hierarchy and stereotypes of men being the master of the machine and machine-related knowledge (see Cockburn, 1985; Wajcman, 1991). In this respect, I would like to emulate what Kadi (2013), has said, "... although the women had indeed become the main user of the computer, and using it regularly, several times a day, for different activities, the gender-technology relation was not redefined" (p. 105). Along with the children (see Chapter 5), young adult men showed a great deal of enthusiasm about adoption and integration of ICTs. Men showed far more control and greater access to domestic digital and cyber technologies. Women instead achieved complete control of the television due to the sexual division of labour and gendered construction of space, and partially due to multiple access to digital screens in the households. As women's expertise and involvement with ICTs are largely instrumental and profession oriented, it is more likely that women's increasing employment would create a wider opportunity for them to have access, i.e. skills, usage, and interest in and engagement with digital and cyber technologies in the future.

Chapter 7

Patronage and Class Politics of Everyday Technologies

7.1 Chapter Overview

I described in Chapter 2 that a focus on the local practices and structures is linked to cultural (soft) relativism. As opposed to a strong/radical cultural relativism, which believes culture is the principal source of validity for moral rights, rules and practices (Donnelly, 1984, p. 401), a soft cultural relativism shows an awareness of the modern, crosscutting, transnational globalised order. This thesis has attempted to operationalise this balance between local and universal. This chapter thus explores the intersection and interplay of the local practice of unregulated, semi-feudalistic (Jensen, 2014), and traditional patronage of domestic servitude, and the modern, transnational domestic technologies. The chapter is invested in understanding the patron-client relationships, and dynamics between the women of different classes - the madams and the maids - in the domestic settings. In particular, it focuses on how the power and politics are played and claimed through the use of domestic technologies.

I find Bourdieusian analysis of class and cultural practices useful to analyse how the consumption of everyday domestic technologies is often used to mark the class boundary and distinction. Middle-class, its lifestyle, and *middle-classness* garnered significant attention in Bourdieu's class analysis (Wacquant, 2013). From a Bourdieusian (1984) perspective, class refers to a distinctive lifestyle and access to certain material and symbolic resources and capitals. "Class,... has to be seen as both dynamic and relational..." (Lawler, 2008, p. 246). This is because class, in Bourdieu's (1998, p. 12) words is, "not... something given but *something to be done*". Reflecting on Bourdieu's work, Wacquant (2013, p. 275) noted, "Not individuals or groups, which crowd our mundane horizon, but webs of material and symbolic ties constitute the proper object of social analysis". Class, as a process of social grouping and consciousness, emerges and is obtained in and through the relentless competition in which actors engage across the varied domains of life for the acquisition, control, and contestation of a diverse variety of power or capital (Wacquant, 2013). Bourdieu's analysis of class and consumption of culture thusly reflects on the social reproduction - how the privileges are

retained and the dominance is reproduced through the attainment and protection of material and symbolic capital (Wacquant, 2013; Hussein, 2017).

Lifestyle and mundane consumption practices occupy a crucial role in Bourdieu's conceptualisation of social class. The differences of lifestyle and consumption practices are seen as manifestations of class distinction (Wacquant, 2013). The consumption practices constitute status groups by establishing symbolic boundaries between individuals occupying different positions in class structure (Wacquant, 2013). An analysis of consumption practice of everyday technologies hence illuminates both the material/economic as well as symbolic/cultural aspects of middle-classness. It also reflects how the middle-classness is used to mark class boundary and distinction.

Middle-classness in Bangladesh is often expressed through the practice of patronage and having paid domestic help. My approach in this research is class centric in discussing the patron-client relationships between the middle-class employer and the poor employee. I do not engage with an analysis of caste largely because it is not part of my middle-class participant's experiences. At least in this research, none of my participants acknowledge the caste-based hierarchy or dominance. I would argue that it indicates a caste-blindness on their part, rather than a castelessness. This caste-blindness is linked to the popular assumption that the caste-system is only associated with Hinduism. However, research (Islam, 2011; Jodhka & Shah, 2010) show that there is a strong sense of caste-mentality among both Hindu and Muslim communities in Bangladesh. "Both the Muslim majority and Hindu minority in Bangladesh have a hierarchical caste system with discrimination, exclusion and practices of untouchability against the lower castes" (IDSN, 2008, p. 2). In this case, the lower-caste is often easily identified and understood as the people involved in the most menial occupations such as sweeper, cobbler, weaver, quack for circumcision⁵ and potter, and are discriminated and looked down upon. People engaged in these occupations are known as *methor*, *muchi*, *hajam*; all of them are derogatory terms in Bengali (Jodhka & Shah, 2010; Dalit-Parittran, 2017). Reflecting on the caste-blindness and denial of the Bengali middle-class of West Bengal, India, Bandyopadhyay (2014, p. 32) argues, "Many Bengalis like to believe, however, that caste does not matter in their province. And this absence of casteism is feature of their Bengalinness- their

⁵ The individuals who often perform non-medical male infant circumcision in Bangladesh. They are locally known as "Hajam" which is a very derogatory term.

point of distinction from the rest of India”. Bandyopadhyay (2014) insists that the late Aryanisation of the region and political ascendancy of Buddhism and Islam in different historical periods are supposed to have reduced the rigours of untouchability and caste in the Bengal region. It would not be an exaggeration to argue that the same factors contributed to the caste-blindness of the modern Bangladeshi middle-class. Following Bandyopadhyay (2014), I argue that this rejection of the caste system or caste mentality marks the middle-classness as part of becoming modern, liberal and progressive.

However, reflecting on the consumption of domestic technologies - the transference of technological knowledge and skills and the physical access to technologies - this chapter investigates the interplay of class and gender within the everyday domestic life of middle-class households. At the same time, it is intended to explore if the adoption and consumption of domestic technologies reproduce and/or redefine the class dynamics. In particular, the chapter focuses on the practices of marking and securing class boundary, power, and status through the practice of symbolic and material possessions. The first substantive section of the chapter reflects on the nature of domestic servitude and the employer-employee relationships. The section focuses on issues such as the informal, unregulated nature of domestic servitude, the socio-economic value of domestic servitude for the middle-class, and the marginalisation and representation problem of the poor domestic workers. The following section discusses the range of strategies that are employed by the matriarchs to regulate the domestic workers and their access to domestic technologies to draw the class boundary. The remainder of the chapter briefly highlights the agency, resistance and efforts at subversion from the domestic maids to leverage their position in the bargain.

7.2 Patronage of the Domestic Servitude

Reflecting on E. H. Chowdhury’s (2010) conceptualisation of the new women in Bangladesh, as I discussed in Chapter 2, the women of different classes, particularly the middle-class and the poor often share a patron-client relationship that endures in the private settings of everyday domestic life. With an engagement of relevant literature and field data, this section of the chapter focuses on issues including the informal nature of domestic servitude and labour; the economic value and significance of domestic workers in the everyday life of the middle-class;

the relationships and dynamics between matriarchs and maids; and the representation/marginalisation problem of domestic workers.

7.2.1 Domestic Servitude: An Informal Socio-Economic System

For decades, household chores such as cleaning, washing and cooking have been performed by paid domestic workers. Over the years, the domestic servitude has grown as an informal economic sector. The informal nature of the paid domestic work is common in the South Asian region (Banerjee, 2004; Sen & Sengupta, 2016). Informality, in fact, is an integral part of the urban economy, networks, and infrastructure. As discussed in Chapter 4, it is one of the most dominant characteristics of the urban system in the global South, and is historically associated with marginalisation and poverty (Davis, 2006; Lombard, 2014; Roy, 2009, 2011). Informality is often seen as a response and intervention from the poor and marginalised to the state's failure to provide resources, employments, and opportunities (Rakodi, 1995; Sen & Sengupta, 2016). Similarly, the informal employments and labour, including the domestic servitude, are often identified as "coping strategies" (Rakodi, 1995, p.467) for the urban poor.

The nature of domestic servitude and the employer-worker relationship still have a feudal overtone; it is often seen as a patron-client relationship (Jensen, 2014; Sen & Sengupta, 2016). The informal, unprotected and precarious nature of the servitude is often featured in stories of exploitation and violence of the domestic workers in the media (83% of child domestic helpers are abused physically, 17% sexually: Study, 2011; Khan, 2016). Until recently⁶ the paid domestic labour was not protected by the state and labour laws in Bangladesh (Jensen, 2014). Yet, the implementation of the policy is often questioned. According to Nazma Yesmin, the Programme Officer of Bangladesh Institute of Labour Studies (BILS):

Domestic workers are not included in the Labour Law 2006... They have no fixed amount for salary or working hours. There are no rules or regulations, which can

⁶ As a new development in 2015, the Cabinet adopts the Domestic Worker Protection and Welfare Policy for the first time in Bangladesh in response to the ongoing demands of the National Domestic Women Workers Union (NDWWU). Information retrieved from: <http://www.thedailystar.net/country/cabinet-okays-draft-policy-domestic-workers-190465>

be followed by the employer or the domestic worker. (as cited in UFDWRs: The Right to Unite, 2010, p. 24)

There are two different forms of domestic workers available in Bangladesh: live-in workers and live-out workers. The live-out domestic workers do not live in the residence of the employer and usually work for many different employers (Anderson, 2000). This arrangement is locally known as *Thika*, which means temporary or part-time work (Sen & Sengupta, 2016). There is no paper work involved in the contracts between the employer and employee. The job responsibilities, bargaining, and payments are made on verbal commitment and mutual trust. The workers are expected to accomplish specific and fixed household tasks including cleaning, washing, or cooking for fixed hours of the day. On the contrary, the live-in domestic workers, locally known as *bandha*, meaning the tied down (Jensen, 2014), live in the residence of the employer and usually carry out various domestic chores ranging from child and elderly care to cooking, cleaning, washing, fetching, and watering plants. The live-in domestic workers are provided with shelter, food, clothes, and medical support along with a regular salary (see Anderson, 2000, p. 39-47). The live-in domestic workers have little to no control over their working hours; they are generally on duty 24 hours a day (Anderson, 2000).

From an economic perspective, working as a live-out domestic worker for different employers is lucrative for the maids. It enables them to have more financial support from several different sources. The aggregated value of socio-economic support that the live-out workers receive from several different employers is higher than that of the live-in workers from one single-patron household. Indicating the problem of decreasing numbers of live-in domestic workers, Mrs. Karim said, “I asked my live-out maid to stay with us and work full time, but she was not interested”. In addition, the live-out domestic workers have more control over their working hours as they are contracted for certain tasks for certain hours in an employer’s house, which invariably enables them to have greater bargaining power and autonomy compared with the live-in maids (Ray & Quayum, 2009; Sen & Sengupta, 2016). As Mrs. Sultana reported, “live-out maids bargain 300 to 400 Taka (local currency) for per household task such as washing, and cleaning”. The live-in and the live-out domestic workers thus experience domination and subservience in the significantly different ways (Sen & Sengupta, 2016, p. 154).

The number of the live-in maids is rapidly decreasing due to economic liberalisation and the increased opportunities for poor women to work in the formal sectors. Economic liberalisation and global capitalism initiated wider opportunities for poor women to work in factories and industries such as those working with garments (Jensen, 2014). The urban poor women are more interested in working either as a live-out domestic worker or working in an industry. For poor, lower-class women, the opportunities in the garments sector have created a strong bargaining position with the potential middle-class employer who wants to hire these young women as domestic workers (see Ward et al., 2004; Jensen, 2014). A rural-urban migration study conducted in Chittagong, the second largest metropolis in Bangladesh, suggests that 67% of women migrants work in garment and manufacturing sectors, while 13% work as domestic labour (Uddin & Firoj, 2013). The preference is comprehensible as it has many positive consequences on women's lives. According to the United Nations Population Fund (UNFPA) 2003 report, "In Bangladesh, textile work in cities has offered young women migrants unprecedented opportunities to earn money, save for dowries and postpone marriage; most of their experience has been very positive" (UNFPA, 2003, p. 7). Some of my participants explained the changing patterns of paid domestic servitude and the impact of economic liberalisation in the following manner:

Working as a *Thika* (live-out domestic worker) for several different employers is more profitable for them (maids). They receive festival bonus or gifts from different households; on daily basis, they receive leftover foods, second-hand clothes, and miscellaneous goods, medical supports as a gesture of kind from different employers on top of their salaries. Nowadays, almost every girl goes to school due to government's food for the education programme. Moreover, at the age of 16/17, they start working in the garments industry. Village girls are reluctant to stay and work as live-in maids. (Mrs. Karim)

Mr. Ahmed noted:

The girls who do not have other options, who are hard-core poor or widows of middle age are only like to stay as a live-in maid these days. The number has declined dramatically in recent days. Most of the young girls like to work in garments industries now.

Mrs. Rokeya noted:

I was desperately looking for a live-in maid since my kids are too young and my husband stays away. But I could not manage to get one... They have become rich... (laugh) no... I was kidding... Actually, the economy is growing. The employment opportunities in the formal sectors are widening... The small entrepreneurship is developing, which creates job opportunities for the rural and urban poor people,

particularly for the women. For example, in my in-law's area, there are lots of mango orchards. There is a whole industry developed based on mango. You need a lot of manpower to run the industry. If a young girl waves the mango baskets, she can earn some money to support her family. At the same time, she gets the opportunity to stay with her family and pursue her education. Why would she then bother to lead the life of a full-time maid staying with an unknown family? Everyone wants to enjoy the freedom. No one wants to be dependent and confined... A young girl can earn maximum one thousand Taka per month as a live-in maid while she can earn four to five thousand Taka per month if she works in a garments factory.

Mrs. Rokeya's comments are testimony to the idea that the women of lower socioeconomic strata, these days, value the economic as well as social independence. They choose the socioeconomic freedom and autonomy provided by the jobs such as industry work or small entrepreneurship over a lifetime of transgenerational imprisonment in the employer's residences (Banerjee, 2004; Sen & Sengupta, 2016). Even working as a live-out maid provides them a greater freedom and autonomy compared with working as a live-in, full-time maid.

7.2.2 The Dependency and the Economic Value of Paid Domestic Work

The dependence and economic value of domestic servitude are twofold: firstly, despite the informal nature, it is a means of subsistence for urban poor women; secondly, paid domestic servitude enables the participation of women in the formal economy and labour forces (Sen & Sengupta, 2016). The hiring of a domestic maid is often seen as a strategy that enables middle-class women to participate in paid employment (Hertz, 1986; Anderson, 2000; Sen & Sengupta, 2016). Jensen (2014) suggests that the access to cheap and unregulated paid domestic labour, along with the changed gender norms and an increased availability of jobs, has resulted in large numbers of middle-class women leaving the private sphere of home and entering jobs in the public sphere. Further, Sen and Sengupta (2016, p. 148) noted, "the employment of a maid allows the middle-class woman to gain 'leisure' for other activities, including jobs and careers of their own, without challenging gender relationships within the family". This argument is thoroughly relevant to describe the gender roles, relations, and the division of labour in the urban households. The role of the modern urban middle-class women, as discussed in Chapter 6, is a negotiated capacity of their role as productive as well as reproductive agents (see Karim, 2012), and this negotiation is achieved through the employment of a class of women as paid domestic workers, despite men's significantly low participation in the reproductive tasks.

The dependency on paid domestic workers also reflects the lack of state-provided services for the child and elderly care. For Jensen (2014, p. 154), in Bangladesh, “childcare facilities barely exist, and appliances such as washers and dryers are not common in middle-class homes – neither is fast food or semi-finished frozen or canned meals”. It implies that the reproductive work in the household is “labour and time intensive”, and thus, “there is a continued and steady demand for low-paid domestic workers in private homes to carry out time-consuming and physically demanding work” (Jensen, 2014, p. 154). This crisis of the contemporary middle-class dwellings is thoroughly captured in my participant, Mrs. Fahmida’s, comment. She is a working woman with long working hours and the mother of an eight-year-old daughter. Mrs. Fahmida’s dependency on a live-in maid is inevitable in the context of Bangladesh. The childcare, for the working mother, is either supported by kinship networks such as grandparents, or by paid domestic workers. However, in recent times, due to the increasing number of breakdowns of extended families, as mentioned in Chapter 2, the issues of childcare have become even more complicated and difficult. Some of my participants expressed their acute dependency on paid domestic maids for childcare and household chores in the following manner:

Once my live-in maid went to visit her relatives for three days and she fell sick severely. My husband and I went to see her. She wanted to quit the job due to her physical condition. We begged her not to quit the job and told her that she does not need to do anything but staying at home to take care of our daughter. Due to our constant nagging and begging, she came back. I know that now it is impossible to get a reliable person like her.

These days, it is really difficult to find a reliable and trustworthy full-time maid. I know that if she (her maid) leaves the job, I will not get anyone like her. This is impossible... Absolutely impossible now... There are so many things you can get here, but getting an honest, trustworthy person (maid) is impossible. Even if I get, there is no guarantee that she will be willing to stay with us for a long duration. (Mrs. Fahmida)

Another participant Mrs. Rokeya noted:

I do not have a live-in maid. There is a live-out maid, who carries out the fixed tasks such as washing clothes, fetching water and sweeping. It is difficult to manage without a live-in maid when you have two kids and one of them is only one year old and your husband stays away. My aunt is staying with me right now to provide me support. But this a temporary arrangement, as she will leave soon.

The intense dependency on paid domestic servitude has an impact on the level and degrees of mechanisation of the housework. The practice of domestic servitude involves an economic exploitation of cheap labour as an alternative to the automation of the housework. For Silva (2010, p. 22), "... a major implication of the widespread use of paid domestic work is to hinder technological developments for housework". Silva (2010, p. 22) further noted, "... technological modernisation in machines for housework is globally uneven as different levels of availability of domestic workers play a significant role in the differentiated patterns of innovation across regions". Thus, the availability of cheap paid domestic labour is often considered as an alternative to relatively expensive labor-reducing technologies by matriarchs. Mrs. Karim, for example, explained how the availability of the paid domestic worker has prevented them from adopting several kitchen technologies in the following manner:

Labour is cheap and available in our country. I am not feeling the necessity of such technologies (washing machine, vacuum cleaner) right now. Therefore, I am not using technologies. But in future, I may have to use technologies. (Mrs. Karim)

At the same time, the increased scarcity of reliable live-in domestic maids has forced households to start adopting small kitchen appliances such as blenders, mixers, rice cookers, microwaves, electric kettles, induction ovens, washing machines and so on. As one of my participants, Mrs. Nahar, noted: "We may have to start using all kind of modern kitchen appliances soon to carry out the household chores as there might be an acute scarcity of paid domestic help in the near future". Further, Mrs. Sultana, another participant noted the similar expression:

It is difficult to get a live-in maid nowadays. Though the live-out maids are still available... I assume that in the near future we have to switch to and depend on technology more than that of we do now. I may have to buy a washing machine or a vacuum cleaner soon as my live-out maid has a plan to go for a three months holiday for some family reason in the next year. I cannot help but buy these technologies as it would be quite impossible for me to carry out all heavy household tasks manually after taking care of two young kids.

Bangladesh often figures in the migration literature as a source of transnational domestic labour in the Middle-Eastern and East Asian countries (see Gardner, 1995; Ahmed, 1998; Dannecker, 2005). The literature largely illuminates the exploitation of migrant domestic workers working in developed countries (Gardner, 1995; Ahmed, 1998; Dannecker, 2005). However, paid domestic labour within the country is not a well-researched topic. There is a paucity of knowledge about the experiences of domestic servitude and the relationships between the

madams and the maids. The existing archive on this issue is primarily the initiatives by the NGOs and development organisations (see Rahman, 1995; Shoishab, 1999, 2001; Save the Children, 2010), which largely quantifies the exploitations and abuse of domestic workers.

The representation of domestic workers, therefore, always remains problematic due to the fundamental power relations between employers and employees. The hired domestic helpers are predominantly represented and voiced by the middle-class researcher who is often an actual or potential employer of poor domestic maids (Sen & Sengupta, 2016). In an attempt to provide a voice to the poor workers, the middle-class patrons often emphasise dependency, sharing, caring, mutual trust and love; while, often censoring issues of labour, subordination, and resistance, which are central to patron-client, or employer-domestic worker relationships (Banerjee, 2004). Furthermore, the employers often stress the familial intimacy of the employee. The claim of familial intimacy can be an armour used by the middle-class, as Jensen (2014, p. 158) noted in her ethnographic research on the live-in child domestic worker in Bangladesh: “The employers try to construct the work relationship as one of familial care, whereas the workers perceive themselves as workers, not family members”. Thus, an overemphasis on familial intimacy may conceal the inherently conflicting and exploitative nature of the domestic servitude (Sen & Sengupta, 2016), and such representation of the relationships is often influenced by the middle-class’s desire and interest to establish and protect the class power and dominance over the domestic workers (Banerjee, 2004, p. 162).

The representation problem and the power relation between middle-class employers and poor domestic workers could be conceptualised as an issue of subalternity and marginalisation (Sarkar, 1984, Spivak, 1988). Subalternity is often designated to a population, socioeconomically and politically marginalised and oppressed from the hegemonic power structure (see Guha, 1982). It also delineates the “fundamental relationships of power, of domination and subordination” (Sarkar, 1984, p. 273). Spivak’s (1988) work, however, marks subalternity as a “limit of archival and ethnographic recognition” (Roy, 2011, p. 224). Spivak (1988; 1993) critiques the capacity of the dominant epistemologies and methodologies (Roy, 2011, p. 224) for the nonrepresentation of the subaltern experiences. I find Spivak’s (1988, p. 271–313) notion of the *subaltern cannot speak* extremely relevant in my research, at least at the methodological level, as the study does not have an access to the voice and experiences of paid domestic workers of middle-class households. I made a conscious decision of not interviewing the maids, speculating the potential risk of the maids losing their jobs as they live

and work within intimate, close proximity to their employers. The conflict of interest with the employers might have threatened the maids to lose their jobs (see Chapter 3).

To recapitulate the discussion so far, the domestic servitude has grown as an informal, urban socioeconomic system with a class relation at the core, which often involves varying degrees of mutual dependency, conflict and struggles between employers and employees due to its private, intimate and domestic site of work. The hiring of paid domestic labour in middle-class households is a strategy that allows middle-class matriarchs to balance between professional and family life (Sen & Sengupta, 2016). Thus, the cheap domestic labour is often appropriated as an alternate solution to the low level of automation in the kitchen. Further, it also enables the matrons to achieve *leisure* for investing on other activities, such as children's upbringing and education or spending quality time with the children.

7.3 Politics of Knowledge Transference and the Gatekeeping of Technologies

The conflicting class relations between middle-class employers and poor domestic workers are produced and reproduced through the symbolic and material everyday practices (Tolen, 2000, p. 66). Consumption is one of such practices that charts material as well as symbolic dispositions. In fact, a Bourdieusian (Bourdieu, 1984, p.101) analysis would suggest that a distinctive, class-specific lifestyle is often expressed and reproduced through consumption practices. Thus, the practice of consumption of everyday technologies expresses and generates a distinctive taste, lifestyle and culture, which explicitly marks and differentiates the middle-class from the poor. This section investigates how class difference and power is created, perpetuated and reproduced by the matriarchs or madams by employing several strategies including the ground rules and disciplining projects, and the access to valuables such as domestic technologies (see Huang & Yeoh, 2007; Yeoh & Huang, 2010). It also highlights that the madams often play the role of the gatekeepers to control maids' physical access to domestic technologies and regulate the transference of technological knowledge.

7.3.1 The Politics of Claiming Boundaries and the Knowledge Transference

“The subject of domestic service seems inherently linked to the construction of social difference” (Tolen, 2000, p. 63). It is seen as a “rich and fruitful” ground for exploring and examining the processes through which social differences and inequalities are created, reproduced and perpetuated at the micro-level of the everyday domesticity (Tolen, 2000, p. 63). For Sen and Sengupta (2016, p.2), “Domestic work provides the great continuity in women’s shared experiences - across caste, class, and historical contexts. At the same time, it divides women in the most visible and explicit fashion - between women employers and women workers, madams and maids”. It implies that, despite the cohesive, shared experiences of the domestic work and reproductive roles, women of different classes are often distinctively divided by the access to material and nonmaterial possessions. While material possession involves access to valuables such as electric devices, nonmaterial possession is often made of language, communications, mannerisms and household rules. In other words, these resources, particularly the nonmaterial/symbolic resources, often highlight what Lawler (2008) has described as middle-classness. “In this respect, I suggest, middle-classness cannot be seen in isolation but has to be considered in the context of other groups which constitute its ‘outside’” (Lawler, 2008, p. 246). Lawler (2008, p. 246), further, detailed that, historically, the middle-class emerge with a distinctive normality, morality and taste, which are the worth and symbols of “the middle-class being middle-class”. The middle-classness (Lawler, 2008) is reproduced and used to “*otherise*” (Banerjee, 2004, p. 165) the poor maids within everyday domesticity.

Othering is often linked to the “disciplining project” (Jensen, 2014, 160). The project involves training and teaching the so-called middle-class manners, etiquettes, and sophistications. The maids are taught the new language of communication, regular household tasks, maintaining hygiene, and the handling of domestic amenities and technologies (see Tolen, 2000; Yeoh & Huang, 2010). The employers often exercise power through the attempts of *disciplining* (Jensen, 2014, p. 160). The disciplining project is, on the one hand, indicative of a *civilising* attempt by the matriarchs; on the other hand, a marker of the middle-class’ cultural identity or middle-classness. The matrons with a live-in maid noted that the domestic workers coming from a poor, marginalised socioeconomic background need to be civilised and trained in the urban middle-class culture to be accommodated into the household (see Tolen, 2000; Yeoh & Huang, 2010; Jensen, 2014; Sen & Sengupta, 2016). The failure to learn and perform the middle-class etiquette and mannerisms by the maids often triggers conflicts and dissatisfaction.

Some matriarchs delineated their resentment about the domestic worker's lack of urban mannerism in the following manner:

I have just recruited a live-in maid a few days ago; it has not even been one month. She is from a rural area and from a very poor socioeconomic background. She has not stayed in any other household as a maid before. Therefore, she does not understand the urban reality and how a typical middle-class household functions. For example, if the doorbell rings, she opens the door for the outsiders and leaves it unattended. She does not even ask the person who he is, or whom he wants to meet. Without asking for any information my maid allows anyone inside the home, which is scary considering safety issues in the urban area. (Mrs. Ahmed)

The integration of maids into the household is a complicated process. You have to compromise many things to incorporate them. For example, we have to train them to teach our norms and practices to fit into the household environment. Sometimes, we have to accept their failure to perform or act accordingly. Sometimes, they create trouble as well. For example, we ask the maid to keep the door of the rooftop/terrace shut. She keeps forgetting. One day, all clothes were stolen as she left the door open. She is not habituated with the practice of closing doors and the seriousness of social safety in the urban area. We have accepted that there would be some hazard if you have a live-in maid. (Mr. Ahmed)

I am irritated by their (maids) attitudes. I have two live-in maids and they are unable to cope with my household norms and values. They do not have any manners... Despite my several efforts to train and teach them, they hardly bother to learn or maintain those norms. They do not know how to sit and behave properly while watching TV with other members. I find it very disgraceful if my maids do not sit in a feminine way while watching TV in the presence of my husband and son. They have a tendency to lie down on the floor while watching TV which I do not like at all. I want them to sit crossed leg on the mat. I, therefore, bought a small TV for them to watch separately. (Mrs. Saba)

The statements above also highlight how the boundary is drawn to create and protect the social differences through a spatial restriction and arrangement, as Mrs. Saba pointed out that the maids watch television with the members of the household sitting/lying on the floor. For the domestic worker in the South Asian region, having a meal and viewing television sitting on the floor is a frequently used symbolic practice and the "unwritten ground rules" (Yeoh & Huang, 2010, p. 227) to create and maintain the class distinction and hierarchy in the employer's households (Jensen, 2014; Sen & Sengupta, 2016). Symbolic boundaries involve, "conceptual distinctions made by social actors to categorise objects, people, practices, and even time and space" (Lamont & Molnár, 2002, p. 168). Sen and Sengupta (2016, p. 154) argue that domestic servitude involves the "constant assertion of superiority by employers and a constant awareness of powerlessness on part of employees". The superiority is often asserted through the

establishment of unwritten ground rules for the maids to follow. The rules are established and implemented to regulate the maid's access to space and objects, particularly the valuable ones (see Yeoh & Huang, 2010; Jensen, 2014).

The disciplining attempts, however, might not necessarily be for the purpose of integration and inclusion of the maids in the households and family as often claimed by the matrons. This is because the matrons carefully draw the boundary to prevent maids from capitalising on the acquired knowledge, training and know-how to leverage their class positions and status. The employer's concern about establishing a fine balance between their authority and maid's learning explains the politics of knowledge transference. It is also evident in matriarchs' expectations of maids' ability of "taking initiatives" (Yeoh & Huang, 2010, p. 225). The employers often articulate that a good maid should have the quality of taking initiatives, but in a selective manner. Matriarchs tend to believe that the quality of taking initiative should be cultivated carefully as it might turn into a "double-edged sword" (Yeoh & Huang, 2010, p. 225). This implies the *initiatives* by the maids to get their employer's approval and sanction as long as it is not challenging the employer's authority (Yeoh & Huang, 2010). Thus, the matriarchs educate and train the maids to the extent that does not threaten the class distinction and power. Mrs. Sumaiya, for example, expressed how she wanted her live-in maid to be intelligent and taking initiatives in the selective ways (Yeoh & Huang, 2010). She describes:

I want the maid to be intelligent enough to learn and perform the tasks in the expected ways, but if they become too smart that could be a problem... I, therefore, do not teach certain tricks and trades... for example, she cannot operate the TV... does not know how to change the TV channel... I did not bother to teach her either as it might cause her watching TV while we are not at home....

The statement above exemplifies how the transference of knowledge and learning is determined and shaped by the power relation between the transferor and the transferee; in this context, the power relations between the matriarchs and the maids (Tolen, 2000). For Tolen (2000, p. 66), "... knowledge and practice become the subject of negotiation and conflict, and media in the construction of class identity". The power relation between the transferor and the transferee may facilitate or constrain the transference of knowledge and practices. Mrs. Sumaiya's comment implies that the transference of technological knowledge is shaped by the class interest of the middle-class employers. The matriarch restricted the transference of knowledge to the maid, realising that it might allow her to watch television without the employer's permission, which would undermine the employer's authority.

7.3.2 Politics of Space and Technology

As noted before, the spatial restriction is used as a strategy to mark the social difference and class power by the middle-class employers. For Yeoh and Huang (2010, p. 229), the dominant-subordinate relationships are spatially reproduced in everyday domestic life. There are certain spaces in the households that are restricted to the domestic workers or they have limited access to (see Jensen, 2014). The spatial restriction or the *no-go sites* for the domestic workers are often not fixed and precisely demarcated. The degrees of accessibility and exclusion, instead, are determined by necessity, role, and circumstances (Yeoh & Huang, 2010, p. 229). The maids, thus, have an approved entry to the bedroom for cleaning purposes. The approval is usually revoked for protecting the employers' privacy.

The spatial restrictions can act as a decisive factor for placements or objectification (Silverstone, Hirsch & Morley, 1992; Silverstone, 2005) of domestic technologies such as television. To protect the employer's privacy and restrict the maid's access to the master bedroom, the employers often place the television in the common space of living areas. As noted in Chapter 2, the objectification of domestic technologies is signified in the use of space and spatial differentiations in the households (Silverstone, Hirsch & Morley, 1992, p. 24). To provide maids with access to television and recreation, and to protect their privacy, the middle-class employers, like to accommodate it in a communal space like the living room. One of the matriarchs, Mrs. Chowdhury, explained why she decided to place the television in a common space. She noted:

I used to have the television in the master bedroom. The problem with the placement was the live-in maid's access to our bedroom... it is an unwritten rule or expectation that to keep a live-in maid, you have to provide her access to viewing television at least for certain hours of the day... I did not like the idea that she will be sitting in my bedroom for hours because it compromises the privacy... I had to be aware before I had any conversation with my husband or children in front of her... I, therefore, moved the television to the lounge area.

Another respondent, Mrs. Karim, noted:

I do not like the idea of having a TV placed in my bedroom largely due to the maid... I have to allow her to watch TV and I do not want to have a family matter discussed in front of her... I made it clear to my maid that she does not need to be in my bedroom unless for cleaning purposes or she has been asked to...

The statement above reflects that the maid's restricted access to space determines the placement of the television in households. It is noteworthy that the placement of the digital screens are also determined by the idea of physical monitoring of young children's viewing of television and restricting them from unattended viewing (see Green, 2002; Livingstone, 2007a), as discussed in Chapter 5. This implies that the placement of a digital screen, particularly a television, in the middle-class households is defined by the two major factors: 1) the physical monitoring of the children's viewing (see Chapter 5), and 2) giving the maids access to television while regulating maid's access to certain spaces such as the employer's bedroom. The placement of television in a common, shared space illuminates the mutual determination (Lie & Sørensen, 1996; Lehtonen, 2003; Berker, 2011; McDonald, 2015) of technology and the household dynamics, rules and norms. This is because, on the one hand, the placement is indicative of how the objectification of technologies such as television is defined by the household dynamics; on the other hand, the placement epitomises and defines the spatial restrictions for the domestic workers.

The matriarchs were observed to act as the gatekeeper of the domestic technologies, particularly the kitchen technologies, by restricting maids' access. It is widely believed and claimed by the matrons that the maids are not competent enough to use and handle the domestic technologies, especially the kitchen appliances, with care, which might cause damage to those technologies (Tolen, 2000; Silva, 2010). This pattern of gatekeeping and regulating maids' access to technologies by the matriarchs was also noted in a study conducted by Elizabeth Silva (2010) in the middle-class households in Brazil. Silva (2010, p. 28) noted, "... it was widely perceived that maids could damage household technologies if they were allowed to use them. Many stories of damage, or of protective strategies by the mistresses, were told." My participants expressed the gatekeeping role in the following manner:

My live-in maid cooks the everyday rice. She cannot handle the rice cooker. I tried to train her. But I am afraid of if she damages the cooker or spoils the rice. (Mrs. Sultana)

I am still training her how to operate technologies like a rice cooker. I cannot depend on her completely. I have to stand beside her to look after if she doing things right. She herself asks me to observe her since she suffers from a lack of confidence. I am trying hard to train my maid. Only God knows how long will she take to learn everything? (Mrs. Ahmed)

I do use a food processor to make spices and juices. But I do not allow my maid to handle it. She cannot use these electronic devices. (Mrs. Fahmida)

I use the food processor and blender... My maid does not handle these things since she does not know how to operate. (Mrs. Nahar)

I do not allow my maid to use any devices such as microwave, mixer. Since she does not know how to use them properly; there is a chance of it is being damaged by her. (Mrs. Sumaiya)

I do not allow my maid to use kitchen technologies. She does not know how to use it properly and these technologies are very expensive. Hence, I have to use them with a lot of care. (Mrs. Sarkar)

Further, some of the matriarchs of my research also attempted to justify their role as gatekeepers of the technologies by raising a moral concern of the safety of the maids and the other member. For example, Mrs. Fahmida noted:

I have a minimal use of devices (kitchen appliances) in my house... I am telling you the reason... Once upon a time, I used to use a rice cooker. I am dependent on my maid and she is not literate enough to understand the nuance of functionality and more importantly the safety issues of using such technologies. I have observed few days that she (maid) attempts to switch off and on the rice cooker with wet hands and clothes. It is very dangerous...

While the matrons made several claims and justifications for controlling the domestic worker's access to mundane kitchen technologies, my field notes and observations, however, show contradictions. The matriarchs repeatedly cast their doubt on their maids' acumen, and skills of handling the kitchen appliances. However, it is seen during the observational period that some of the maids are capable of receiving incoming calls on mobile phones. My field notes also suggest a few records of the maids using kitchen gadgetry such as the rice cooker. Further, in one-to-one interview sessions, the matriarchs, like Mrs. Fahmida and Mrs. Karim, randomly mentioned that their live-in maids can respond to an incoming call on the mobile phone to stay connected with the employers while they are outside of the home. The intelligence of receiving an incoming call can equate the skills required for operating highly standardised, sophisticated *press-the-button* kitchen technologies.

The matriarchs, in general, showed a condescending attitude and behaviour towards their maids' ability and competence to use kitchen technologies. This pattern of patronising attitude and the claim of supremacy were also demonstrated by the middle-class males to their wives' technological skills, as discussed in Chapter 6. The men showed apprehension about the technological competence and skills of their wives in a quite similar fashion the matriarchs casting doubt on their maids' ability. This implies a twofold domestic power structure and

hierarchy in the middle-class households: the matriarchs protect and differentiate their privileged position over the maids in the ways that are similar to how men guard their control and supremacy over women. The access to technologies is controlled to maintain gender and class domination. There is a twofold hierarchical domestic power relation existing in the middle-class households: the men of the households condescending the women/matriarchs in a similar way to the matriarchs treating the maids condescendingly in regards to the competence and intelligence of handling everyday domestic technologies.

The matrons reported that they use small kitchen appliances such as blenders or food processors to grind spices when the maid is on holiday or is absent. This suggests that the matriarchs want to save the electricity and other miscellaneous costs by appropriating cheap domestic labour (Silva, 2010). At the same time, the use of kitchen technologies in maid's absence epitomises how technologies are appropriated as a bargaining chip. The middle-class employers often establish kitchen appliances as the substitute to paid domestic labour. It allows the matriarchs to have a greater control and bargaining power in managing the maids as well as sending them the message that their labour is replaceable.

Controlling maids' access to domestic technologies is linked to the deliberate process of "otherisation" (Banerjee, 2004, p. 165) by the matriarchs. The deliberation is informed by the intention of drawing and maintaining class boundaries and hierarchies between the different social classes. On the one hand, it embodies the middle-class's fear of losing the domination and control over the marginalised groups; on the other hand, through the constant condescending of the subordinated groups, the middle-class marks its own cultural identity (Banerjee, 2004, p. 165). Domestic technologies are objectified and incorporated in a way to reproduce social inequality and class differences in Bangladeshi households. Kadi (2013, p. 192-208) argues that the reproduction of social positioning and inequality also highlights unsuccessful use, nonuse and exclusion. In my research, such reproduction of social inequality is comprehended in the matrons' attempt to eliminate the domestic workers from the user domain and benefits of domestic technologies.

Though technology enters into the household or user's life with a preformed and intended meaning due to the influence of media, advertisements, and other discourses, it is often given a new or reinvented meaning and significance by the users and the households once adopted (Silverstone, 2005; Haddon, 2006; Juntunen, 2014). A new set of rules and practices are created

by the users. The creation and imposition of new practices and meanings are expressed through the conversion phase of technologies (Silverstone, 2005; Haddon, 2006; Juntunen, 2014). Articulation of domestic technologies as the marker of class power, identity, and status illuminate the conversion phase of domestication. As I highlighted in Chapter 2, conversion phase involves the symbolic significance and the given meaning of technology as well as the user's self-representation. In this case, technology is turned into an apparatus to claim, produce and reproduce class power and status.

7.4 Agency and Resistance: Maids and Privileges

Despite the exploitative nature of domestic servitude, domestic workers are not merely passive victims of material and symbolic exploitation. They, instead, are highly engaged and active actors, bargaining their way out whenever possible (Tolen, 2000; Jensen, 2014; Sen & Sengupta, 2016). In Sen and Sengupta's (2016, p.5) words, the domestic workers are "... bargaining when they can for what they can, seeking, on the one hand, to gain advantages from and, on the other hand, to challenge existing paternalist middle-class ideologies and practices". This implies that paid domestic workers are not uniformly oppressed by the middle-class employers or matriarchs. Maids are often seen as resisting and challenging domination from their employers on several levels (Constable, 2007). For this research, the scope of reflecting on a maid's agency and resistance was narrow as the study did not have an access to the maid's voice and consciousness. This was an ethical decision: I wanted to protect their wellbeing. The resistance account in this chapter, thus, is drawn on the middle-class matriarch's narratives, the field notes, and the researcher's observation. I utilised the privileges of ethnographic research, which often allows the researcher to draw on the field notes, and the experiences and impressions of the field (Sen & Sengupta, 2016, p. 51).

The maid's introduction to and experience of a new way of life in the middle-class employer's households, as discussed earlier, is often used as a resource to improve and transform their own life. The gained experience and knowledge from the employer's house are often used to transform and improve the maid's own living conditions and/or to challenge the domination (Tolen, 2000). "Servants' improvisational ventures into privileged spheres of practice are sometimes met with disapproval by employers, who may act to limit servant's mobility, not only in material terms but through control over symbolically valued practices" (Tolen, 2000,

p.77). Such disapproval is captured in Mrs. Fahmida's statement when she expressed her dissatisfaction about her maid's aspiration to purchase and use a mobile phone. Mrs. Fahmida said:

A few days ago my maid told me she wanted to buy a mobile phone. I asked her why she needed that. She said that she wants to have a mobile phone to listen to music. Notice the purpose of buying...! I do not even use a mobile phone for that purpose. For me, it's just a mode of communication... saying hi, hello to my friends and family, or being aware of my parents. I told her that use of mobile involves recharging money in regular intervals. She (maid) said that she just wants to listen to music on mobile.

The statement above echoes the intense sarcasm in the expression and the language. The matriarch perceived it impudent and immodest for her maid to buy a mobile phone for listening to music. Having an aspiration for adopting, what Silverstone (2005) would term an appropriation phase of technology, a mobile phone for a leisure activity such as music was seen as a threat to the class signifiers and the social differences, both at a symbolic as well as a material level (see Tolen, 2000; Sen & Sengupta, 2016). The use of a mobile phone for leisure activities would have undermined the employer's sense of supremacy claimed through the greater mastery of symbolically significant practices (Tolen, 2000). The middle-class matriarch's desire and interest to protect the class power through material possessions and symbolic practices were comprehended in Mrs. Fahmida's commentaries.

The matriarchs further noted that the maids, particularly the live-out maids often use and show their resistance by being absent or not performing a task in a proper way. As noted before, the part-time, live-out maids enjoy greater bargaining power and autonomy compared with the live-in maid as they are compelled to live in the same house with the employers. The live-out maids are relatively independent as they earn their living from several different employers. It is, thus, relatively easier for the live-out maid to show their resistance and challenge the authority of the employers. One of the matriarchs, Mrs. Karim, for example, noted:

At times, it is difficult to deal with them; you cannot be demanding or pushy with them because they may choose not show up in the next morning with an excuse of falling sick or something else... if you repeatedly ask them to be bit more punctual or ask for a better cleanliness or hygiene, they may disappear for couple of days and may not come to work for few days... The live-out maids do not care as they have other employers to work for. In addition, they know that these days it is difficult to find a maid...

Another participant Mrs. Saba described:

You need to be careful and gentle to deal with the maids. At times I feel like, they have the upper hands... they are so strong in the bargain... if you try to be hard on them about the punctuality or better performance, or if you fail to fulfil their demand, it is more likely, you will find them absent in work in the next day..., or they will go slow, or do some damage to the utensils. Few months before my live-out maid asked me to increase her salary. I said that I am having some financial trouble and it is not possible for me to increase her salary right now. I said I will increase it a couple of months later... and then I noticed a sudden change in her behaviour and the performances. She started coming late in the work, tried to accomplish the tasks twice quicker which contributed in decreasing the level of cleanliness, hygiene, and involvement... I started finding some of the utensils damaged or broken every other day... now, how should I deal with these? These are so subtle; a way of telling you, you better increase my salary otherwise, these will continue. I then had to increase the money...and everything seems to be fine now!

As the live-out domestic workers work for multiple employers, they constantly compare employers' treatment, behaviour, bonuses, salary and other facilities given to them to bargain with other employers. The comparison is often used as a bargaining tool to demand and gain extra wages, bonuses and support from their employers. For Sen and Sengupta (2016, p. 154), the constant process of comparison allows them to "leverage for better conditions". One of the matriarchs, Mrs. Saba, for example, noted that her live-out maid asked for a second-hand mobile phone to use. Upon failing to fulfill her demand, the maid later deliberately told Mrs. Saba the stories of how the other employers are being kind, generous and giving to her, and she also put in extra effort to return their kindness by overworking or being punctual. Mrs. Saba further stated that she had to give her maid her daughter's old, second-hand mobile phone to meet the demand and ease the pressure.

The live-out domestic worker, thus, invariably have more resistance, agency, and autonomy to undermine and challenge the domination of the middle-class employers compared with the live-in maids. The opportunities to work for several different employers for certain hours allow them to have a greater bargaining power to leverage their working conditions and salaries (see Sen & Sengupta, 2016). The maids often seek to use the gained experiences, knowledge and expertise from their employers' household to improve the standard of their own living. Though agency and resistance might not allow the domestic worker to achieve a vertical mobility straight way, it perhaps provides them with the means to transform the living for their children (see Sen & Sengupta, 2016).

7.5 Chapter Summary

The previous chapter highlights the kitchen as a discrete, gendered space (Saarikangas, 2006; Meah, 2014). This chapter extends that argument by claiming that the kitchen in the middle-class Bangladeshi household is, in fact, cross-cut by gender and class, as middle-class matriarchs and domestic maids are held responsible for carrying out housework. The abundance of cheap labour has an impact on the level of adoption of kitchen appliances. Households often tend to rely on the cheap labour of domestic workers to function, which also signifies the low level of automation in housework. It is a unique mix of transnational, modern kitchen gadgetry and local instruments and practices, as noted in Chapter 6. The combination of the traditional, semi-feudal practice of patronage, local kitchen implements such as *bonti*, *shil-pata* (see chapter 6) and the global, advanced kitchen appliances along with the rapid decline of live-in maids due to the market liberalisation and formal sector job opportunities, symbolises a case of cultural (soft) relativism.

The hiring and management of domestic help by the middle-class women to opt out of their domestic labour is a marker of middle-classness (see Hussein, 2017). Class is played out between the middle-class matriarchs and poor, marginalised domestic workers by the allocation and control of housework. The tussle involves the employer's attempt to draw the class boundary and distinction and restraining maids from intruding into the privileged spheres, while the maids seek to subvert or intervene into the privileged spheres to transform their conditions. This exemplifies the struggle for distinction, long noted by Bourdieu (1984). The matriarchs make relentless attempts to create and reproduce the "otherisation" (Banerjee, 2004, p. 165) of the domestic workers by deploying several different strategies and controlling the access to valuables such as domestic technologies.

Maids' controlled access to technology allows matriarchs to retain a strong position in the bargain. The physical access to technologies and the technological skills have been turned into a marker of class distinction and authority by the middle-class matriarchs, which, in turn, highlight the conversion and transformation of the technologies (see Silverstone, 2005, p. 234) by its users. Domestic technologies are converted into a status marker and signifier of the middle-classness. Further, the transference of knowledge is often controlled by the middle-class employers. It is regulated to restrain the domestic workers from using their acquired

knowledge, expertise, and cultural capital from the employer's house to transform their lives or make an intervention into the privileges. Despite the unequal power relations, the domestic workers actively engage and resist the domination with various means including the knowledge and the know-how they gain from the employer's house. They often attempt to subvert and intervene into the privileges to gain a relatively strong position in the bargain with the middle-class employers. Maids' efforts at resistance for a bargain to better pay and conditions, as well as their access to domestic technologies, actually reaffirm/strengthen the matriarchs' efforts at distinction because it cements the notion of a hierarchy and control. In particular, maids' attempt and aspiration to access domestic technologies could be seen as a response to undermine matriarchs' efforts towards middle-classness.

To conclude, the discussion of this chapter suggests a mutual determination of technology and social inequality. As Kadi (2013) argues, an aspect of technology is that it enables the individuals and households to reproduce their own positioning. Thus, technology determines and reproduces class differences and distinctions as technology is articulated as the symbols of class power and status. The kitchen appliances are integrated in a way that often allows the matriarchs to gain control and a powerful position in the bargain with poor maids. In turn, social inequality, such as class influences, determines the ways technology is consumed. The objectification and incorporation of technology such as televisions are determined by the class dynamics between the employer and the employee.

Chapter 8

Conclusion

8.1 Middle-classness: Aspiring to be Transnational

This thesis began with my desire to partially critique and correct the shortsighted representation of Bangladesh, known as the “Kissinger myopia” (Zeitlyn, Janeja, & Mapril, 2014), of which I became aware after migrating/immigrating to New Zealand. While grappling to understand the underlying causes of wrong presumptions and myopic portrayal of Bangladesh and Bangladeshis, through my research and reading, I became acquainted with the invisibility and marginalisation of middle-class narratives. My research became an attempt to redress this invisibility by investigating this affluent middle-class through their consumption of everyday domestic technologies. Over the course of this thesis, my perception about outsider misrepresentations and distortions, which I initially considered as isolated, individual experiences, has changed. I became aware of its longstanding structural and institutional nature, which has garnered critical attention from many scholars (Said, 1978; Spivak, 1988, 1999; Bhabra, 2007; Kuokkanen, 2008, Connell, 2007, 2014).

As my personal life and experiences have been significant components of this research, I am tempted to engage with some personal anecdotes again. I went through a few reassuring and encouraging moments for this research when I felt that my personal experiences and struggle of being misrepresented and misconstrued that guided me to develop this research is indeed shared by many others who have traveled from the margin to the centre, as in from the South to the North. The most recent one being the responses I got from my recent conference presentation.

Five weeks before my submission, I presented a paper titled “*The quest for understanding the invisibility and marginalisation of the Bangladeshi middle-class*” at The Australian Sociological Association (TASA) annual conference in Perth. My paper was about my theoretical comprehension of the invisibility of Bangladeshi middle-class narratives, which I explained in Chapter 1 of this thesis. After the presentation, I met a group of postgraduate

students from the Indian subcontinent who were studying at different Australian universities. They all asserted their experiences of confronting misrepresentation about their own land, people and culture. One of them, from Pakistan, told me that she could identify with the argument of invisibility of middle-class narratives and misrepresentation on two different levels. Firstly, she expressed her agony by saying that Pakistan and its middle-class often confront similar kinds of misrepresentation and distortion. She further told me that her husband is a Bangladeshi and often expresses his disappointment over hyperbolic global representations of Bangladesh for its poverty and floods, while no one seemingly cares about its rich, vibrant and colourful cultural and literary heritage, or the practice of spiritual, syncretic and liberal Islam.

Partially in response to this longstanding problem of misrepresentation, my research investigated middle class through their consumption of everyday technologies by operationalising the theory of domestication (Silverstone, Hirsh, & Morley, 1992). The theoretical framework is inherently compassionate about exploring the ways technologies are appropriated within the sociocultural milieu of everyday domestic life (Lim, 2008; Kadi, 2013; McDonald, 2015). The operationalisation involved contextualising the theory and highlighting the key useful components of my research. I conceived the use of everyday domestic technology as a human-nonhuman entanglement or assemblage, which allowed this thesis to focus on multiple entities, such as everyday practices and the use of urban and domestic space beyond the use of technology and technological specifications. In Chapter 2, it emerged from the assessment of the theory and literature that the approach of mutual determination/shaping of technology and its social aspects is an important and useful way of looking at the appropriation of technologies into the fabric of everyday life. This approach helped to frame and to guide my research on the basis of two broad questions: 1) how are domestic technologies appropriated and used by the members of the households, and, in turn, 2) how or if these technologies reproduce or redefine household practices and relationships.

From the assessment of the theory and review of the related literature, it appeared that the theory largely remained unresponsive to irregular and splintered infrastructural realities, which perhaps makes it not such a good fit for the urban Bangladesh context. I conceived this theoretical insensitivity not in isolation, but in the context of the intrinsic problem of the social sciences and its modernist presumption of the universality of Northern structures, infrastructures and ideas (Connell, 2007, 2014). My research made a contribution to addressing

this issue by employing the theory in a context where access to basic infrastructures, such as water and electricity, is not taken for granted and often a “socially enacted performance”, the urbanites need to plan, act, execute and adapt accordingly to secure amenities such as water and electricity (Button, 2014, p. 86), even for the affluent middle-class (Graham & Thrift, 2007). Chapter 4, in particular, highlighted the ways technologies are domesticated and the adjustment and negotiations that are made when resource supply is irregular due to the (lack of) infrastructure.

The chapter challenges and critiques the Northern presumption of the universality of black-boxed infrastructure (Luque-Ayala & Marvin, 2016) through the notion of splintered urbanism and infrastructure (Graham & Marvin, 2001), focusing on the three crucial local practices and mechanisms: informal infrastructure, self-configured/financed infrastructure and improvised infrastructure. Apart from that, the frugal novelty and improvised, self-helped infrastructure might turn out to be the future for global North as well. The Northern assumption of a stable infrastructure will be increasingly challenged in the near future (Byrd & Matthewman, 2014). Due to issues such as climate change, insufficient supply of fossil fuel and infrastructural neglect, the vulnerability of power and electricity infrastructure, in particular, will increase in coming decades (Byrd & Matthewman, 2014). If this happens, the irregular infrastructure, which is currently the norm for the South, might transpire as the new normal for the North. In that case, the North might have to emulate and rely on the South’s current practices of improvised, informal and self-help infrastructure.

After foregrounding a discussion on the provisioning of irregular infrastructure and the local practices around it, and how it impacts the appropriation of everyday technologies in Chapter 4, in Chapters 5, 6, and 7, I examined the ways domestic technologies are adopted and integrated into the context of gender, different generations, and class/patronage dynamics and relationships. In particular, the discussion in these three chapters is substantially centred on how household members often claim, reclaim and reproduce the power, pleasure and position over the consumption of everyday technologies. From the analysis of these three chapters, it emerged that everyday domestic technology is often converted into a tool to claim, reclaim and protect social positions and privileges between parents and children, husbands and wives, and matriarchs and maids.

In Chapter 5, for instance, I showed how parents attempt to create and impose rules and censorships to regulate children's use of digital technology. The children, on the contrary, I argued, often employed strategies based on their advanced skills and knowledge of ICTs to evade parental regulations and censorship. Children often use their technological expertise to leverage their position in bargaining for autonomy and access to individualised ownership of digital gadgets. The similar patterns of tensions, conflicts, negotiations, and bargaining are perceived between husbands and wives, and matriarchs and maids, as detailed in Chapters 6 and 7. In particular, it appears that a two-fold hierarchical domestic power exists in urban middle-class households. Access to technologies is controlled to maintain gender and class domination. The two-fold hierarchical domestic power relation - the men of the households being condescending to the women/matriarchs in the same way that matriarchs treat the maids in regards to the competence and intelligence of handling everyday domestic technologies.

Not all findings hinge on the difference with the North. The parent-children dynamism and parental aspiration are one of the most transnational aspects of the urban middle-class Bangladeshi household. Reflecting on my analysis and the relevant literature (see Livingstone, 2007b, 2015) it appears that there is an incredible resemblance between the parental aspirations of the North and Bangladesh. Bangladeshi parents are extremely anxious about raising their children as digitally competent and literate while, at the same time, they expressed their desire to protect children from online risks and harm. The transnationality of parental aspiration and treating children as a vulnerable group to be protected challenges the Northern presumption of the "grim image of Bangladeshi children and their childhood" (White, 2007, p. 505).

While the parent-children relationship has emerged as one of the most global aspects of middle-class households, the practices in the kitchen tend to be specific to them. It is a unique combination of a defined, traditional, gendered division of labour; the semi-feudal practice of patronage; traditional, local, nondigital instruments; and a limited presence of modern, digital kitchen appliances. I argued that the kitchen is the most devalued and least mechanised portion of the household. My analysis of Chapter 6 and 7 suggests that the domestication of modern kitchen appliances has not challenged or altered the gendered division of labour. It has, rather, contributed to engendering a socially expected archetype for modern, urban, middle-class Bangladeshi women to balance and negotiate between their traditional gender roles as nurturers and their new roles as economic agents. Such archetypes of modern middle-class women have also been noted by Karim (2012) and Hussein (2017).

Middle-class masculinity, however, has not been negotiated or altered much. It is still largely embedded in the idea of the traditional role of being the breadwinners of the family. I argue that men's contribution to domestic, reproductive work is not substantial, and often casual, selective and random. Rather, middle-class masculinity is often articulated and claimed through the mastery of microelectronic and digital technology. In fact, domestic technologies, particularly the ICTs, are often used by both men and women as apparatus to retain and reclaim their status and position. I argue that while men like to display their prowess in computing as a trait of masculine superiority, women often aspire to make an intervention by gaining digital competency and becoming skilled independent users.

Middle-class women, however, tend to play an important role in maintaining and protecting middle-classness (Hussein, 2017). Working in proximity to the Bourdieusian analysis of class (Bourdieu, 1984, 1998; Waquant, 2013), I described middle-classness as a distinctive lifestyle, and possession of a set of material and cultural resources that they often take pride in and frequently uses to draw the boundary to maintain and protect their privileges from the poor or lower class. In other words, in my research, middle-classness is often associated with the social reproduction of position, power and privileges. I identified a range of such material and cultural/symbolic elements that the Bangladeshi middle-class often use to maintain their middle-classness. One of them is the substitution of the domestic labour of the middle-class women by poor domestic maids. It is often expressed by controlling maids' access to domestic technologies, particularly the kitchen appliances. The access to domestic technologies and the transference of technological knowledge, in this case, is appropriated as a marker of class distinction and middle-classness.

Further, middle-classness is also expressed through the self-provisioning of basic infrastructure and utilities, such as water and electricity, in households. The participants of this research articulate the configuration of self-financed and personal water and energy supply or the heating and cooling system as a marker of their class power and financial wherewithal. As I argued in Chapter 4, the irregular provisioning of infrastructure has turned middle-class households into technology-rich landscapes by appropriating and installing a wide range of gadgets and devices that secure the alternative, informal and personalised supply of water, electricity and thermal comfort. This technological affluence is an indication that despite the issues of disrupted infrastructure, the middle-class are keeping up, or aspiring to keep up, with the transnational tendencies and standards of digitalisation.

Besides contributing to the middle-class narratives, my research makes a modest contribution to Southern theory and perspectives. Firstly, by traveling to the margin with a Northern theory and turning it into a workable theoretical and empirical component by refining the theory's implicit modernist assumption of ubiquitous urban infrastructure. Secondly, by highlighting the cultural and material unevenness, nonlinearity and fragmentation of modern, urban conditions of Bangladesh. My contention is that everyday domestic life of the middle-class and their middle-classness is crosscutting of transnational/global and local, modern and traditional tendencies, elements and forces. This fragmented, crosscutting, and irregular urban condition, digitalism, and middle-classness require a context-specific, critical understanding, which I attempted to achieve in this research, and it might not be figured through the dominant social theory and its Northernness - the claim of universality (Connell, 2007). Putting it differently, an attempt to read present-day Bangladesh, particularly its urban conditions, as a deficit model or studying through the lens of evolutionism will not do justice to its complexity, dynamism, diversity and most importantly, its integration into global networks and processes. Its new urban middle-class is firmly integrated into the global process and aspires to become increasingly global/transnational and, at the same time, retaining if not all, then at least some of its traditional values.

8.2 Further Research

There is plenty of scope for further research which will provide a more nuanced, complex and comprehensive understanding of the nature, issues, and lifestyles of the middle-class. The main dynamic to be explored is globalisation. For example, according to Sabur (2010), Karim (2012), and Riaz (2018), economic liberalisation, migration, and the role of the media, ensure that the middle-class of Bangladesh is already globally connected, and is becoming even more so. "With globalization, neo-liberalism and the presence of a powerfully invasive media, the growth of a new middle class differs itself from its 'older' version on grounds of consumerism (the old middle class took pride in austerity)" (Karim, 2012, p. 53). The relationship between greater global connectedness and consumerism seems likely, but the extent to which this ends a traditional sense of austerity is more open-ended. Certainly a global connectedness and the aspiration of becoming increasingly transnational, and thereby prosperous, is reflected in my participants' responses. This optimism is played out in many ways, and perhaps most interestingly in terms of their aspirations for everyday digitalism. Reflecting on this aspiration,

of becoming part of a global middle-class, is a promising start point to explore differences and similarities between the global North and South.

Ali Riaz (2018) has suggested that the new middle-class which has grown over the last two decades is due largely to the rapid growth of the service industry. Riaz pointed out two important characteristics of the service industry: 1) it is not explicitly linked with the production system, and 2) its global connectedness. He has made a proposition that these two characteristics of the service industry will influence and shape the consciousness and subjectivity of the new middle-class, particularly their social and political roles. Future research might be conducted to investigate changes in the political participation of the new middle-class compared to the old one; whether the new middle-class is more or less interested in the determining role of religion in state and civil society.

Reflecting on Riaz's (2018) propositions, it would be interesting to explore the differences and conflicts between the old and new middle-class in terms of their values and consciousness, political participation and religious practices. The values that the new middle-class prioritise seem likely to be very different from the old. That is, the old middle class used to take pride in the idea of austerity (see Karim, 2010), the idea of "simple living and high thinking". On the contrary, the new middle-class is a powerful consumer category, driven by the tropes of material possession and accumulation, investment, and consumerism. Hence, further research must pay attention to the differences in values, perception, lifestyle, and tastes between the new and old middle-class. In this regard, Bourdieu's concepts around cultural capital would be very useful. A fuller engagement with Bourdieu's theory of capital will help to unpack these myriad questions of distinction.

Appendix A



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PARTICIPANT INFORMATION SHEET (To potential participants)

Project Title: Researching Middle Class Consumption In Bangladesh: Contextualizing a Post-Colonial Moral Economy

Name of Researcher: Ritu Parna Roy

Researcher Introduction

This research is being undertaken by Ritu Parna Roy as part of a PhD degree with the Department of Sociology, University of Auckland. The purpose of this research is to examine the patterns of consumption in the middle class Bangladeshi households.

Project Description and Invitation

My research will explore how common household technologies/commodities (e.g. mobile phone, TV, and household appliances) are being purchased and used by middle class Bangladeshi households.

Bangladesh is often portrayed as a failed state in the making and/ or as the beneficiary of the Western charity. Its large and vibrant middle class is typically overlooked in these accounts. I am hoping to address this imbalance and to explore the unique features of consumption among Bangladeshi middle class households. The research involves participant observation in the households and one hour long semi-structured interviews with the household members.

Any household that identifies itself with the following criteria is invited to participate in the research:

- The members of the household consider themselves middle class
- The household includes parents and children
- At least one parent has stable, well-paid employment

Note: Participation in this research project is voluntary, and you may choose not to participate.

Project Procedures

Participant Observation: the researcher (Ritu Parna Roy) will visit participating households between 3 to 6 occasions for several hours. These visits will focus on an appreciation of the patterns of purchasing, ownership, and usages of household commodities/technologies (e.g. mobile phone, TV, and household appliances).

Semi-structured Interview: The semi-structured interview will involve an hour long conversation with members of the households on issues around the purchasing and usages of technologies/commodities. This will explore daily routines and the importance participants place on the possession of various commodities/technologies. Please note that the interview will be audio-recorded.

Language: The visits and interview will be conducted in Bengali considering the convenience of the participants.

Findings: I will provide participants with:

- A copy of the transcript of their responses to make modification until 14 February 2015
- An executive summary of the overall PhD findings both in Bengali and English

Gift: The researcher will make her final visit to the participating households with a small token gift as a gesture of appreciation for your (participants) help with this research project.

Data Storage/ Retention/ Destruction/ Future Use

The data that you provide will be used for the PhD research of the student (RituParna Roy). Data may also be used to report findings of this research in conference papers and publications in peer reviewed journals.

All responses will remain completely confidential at all times and all data will be destroyed after 6 years by deleting the electronic files and shredding the paper files. Any identifying information such as your name, email and postal address will not be disseminated.

Right to Withdraw from Participation

If you decide to participate in this research, you have the right to withdraw from participation at any time before 14 February 2015. Any data provided by you will be excluded from the research.

Confidentiality

I will do my best to keep your information confidential. The audio recording of your responses will be transcribed, translated, analyzed and reported confidentially by the researcher (Ritu Parna Roy).

Contact Details and Approval Wording

If you are willing to participate, please contact the researcher. Following is the contact details of the researcher:

Ritu Parna Roy
Mobile: +64210550827
Email: roy890@aucklanduni.ac.nz
Or
You can contact on +880721771209

If you have any questions about the research, please contact any of the followings:

Contacts

Professor Alan France (Head of Department, Department of Sociology)
Phone: +64 9 373 7599 extn. 84507
Email: a.france@auckland.ac.nz

Dr Bruce Curtis (Supervisor, Department of Sociology)
Phone: +64 9 373 7599 extn. 88658
Email: b.curtis@auckland.ac.nz

Ritu Parna Roy (PhD student)
Phone: +64210550827
Email: roy890@aucklanduni.ac.nz

For any queries regarding ethical concerns you may contact the Chair, The University of Auckland Human Participants Ethics committee, The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 extn.87830/ 83761.
Email: humanethics@auckland.ac.nz.

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON FOR (3) YEARS REFERENCE NUMBER 010230

Appendix B



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

Department of Sociology
Level 9, Human Science Building
10 Symonds Street, Auckland
Phone: +64 9 373 7599 ext 88614

The University of Auckland
Private Bag 92019
Auckland, New Zealand

CONSENT FORM (To participants)

THIS FORM WILL BE HELD FOR A PERIOD OF 6 YEARS

Project title: Researching Middle Class Consumption in Bangladesh: Contextualizing a Post-Colonial Moral Economy

Name of Researcher: Ritu Parna Roy

I have read the Participant Information Sheet, have understood the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

- I agree to take part in this research.
- I understand that the researcher will visit and stay in my household on several occasions to observe and record the household member's activities around the everyday use of technologies/commodities.
- I understand that the data collected by the researcher will be used in her PhD research. In addition, the researcher may use the findings for any conference papers or publications.
- I understand that I am free to withdraw participation at any time, and to withdraw any data traceable to me up to 14 February 2015.
- I understand that the researcher and the supervisors of this research project will do their best to protect the confidentiality of the collected data.

- I agree to be audio-taped.
- I understand that I will not be offered the audio-tapes or digital files of my responses. But I will be offered the opportunity to edit/modify the transcript of my responses until 14 February 2015. Also, an executive summary of the overall research findings will be provided to me in Bengali and English after completion of the PhD study.
- I understand that there is no third party involved in this research, and the researcher herself will transcribe and translate the audio tapes.
- I understand that data will be stored for 6 years of its collection, after which they will be destroyed.

Name _____

Signature _____ Date _____

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS
COMMITTEE ONFOR (3) YEARS REFERENCE NUMBER 010230

Appendix C



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

Department of Sociology
Level 9, Human Science Building
10 Symonds Street, Auckland
Phone: +64 9 373 7599 ext 88614

The University of Auckland
Private Bag 92019
Auckland, New Zealand

SEEKING RESEARCH PARTICIPANTS

For

Researching Middle-Class Consumption in Bangladesh: Contextualizing a Post-Colonial Moral Economy

My name is Ritu Parna Roy. I am a Bangladeshi citizen and a PhD candidate at the University of Auckland, New Zealand.

I am seeking participants to assist me with my research into patterns of consumption among middle class Bangladeshi households. Bangladesh is often portrayed as a failed state in the making and/ or as the beneficiary of the Western charity. Its large and vibrant middle class is typically overlooked in these accounts. I am hoping to address this imbalance and to explore the unique features of consumption among Bangladeshi middle class households.

Would you and your household be willing to participate? Your involvement would involve me visiting your home on several occasions and interviewing household members about how they purchase, use, and share commodities/technologies including mobile phone, TV, and even household appliances.

I am seeking middle class Bangladeshi households which can identify themselves with following characteristics:

- The members of the household consider themselves middle class
- The household includes parents and children
- At least one parent has stable, well-paid employment

My research will explore how the technologies/ commodities (e.g. mobile phone, TV, household appliances) are being purchased and used by middle class Bangladeshi households. This research will contribute to address the paucity of research on patterns of consumption of middle class Bangladeshi households. The research involves participant observation in the households and one hour long semi-structured interviews with the household members.

Participant Observation: the researcher (Ritu Parna Roy) will visit participating households between 3 to 6 occasions for several hours. These visits will focus on an appreciation of the patterns of purchasing, ownership, and usages of household commodities/technologies (e.g. mobile phone, TV, and household appliances).

Semi-structured Interview: The semi-structured interview will involve an hour long conversation with members of the households on issues around the purchasing and usages of technologies/commodities. This will explore daily routines and the importance participants place on the possession of various commodities/technologies. Please note that interview will be audio recorded.

Language: The visits and interview will be conducted in Bengali considering the convenience of the participants.

The data that you provide will be used for the PhD research of the student (Ritu Parna Roy). Data may also be used to report findings of this research in conference papers and publications in peer reviewed journals. The responses will remain completely confidential at all times and all data will be destroyed after 6 years by deleting the electronic files and shredding the paper files.

Gift: I will make my final visit to the participating households with a small token gift as a gesture of appreciation for your (participants) help with this research project.

If you are interested to take part in this research, please contact

Ritu Parna Roy
Mobile: +64210550827
Email: roy890@aucklanduni.ac.nz

Or
You can contact on +880721771209

APPROVED BY THE UNIVERSITY OF AUCKLAND HUMAN PARTICIPANTS ETHICS COMMITTEE ON FOR (3) YEARS, REFERENCE NUMBER 010230

Appendix D



THE UNIVERSITY OF AUCKLAND
NEW ZEALAND

Department of Sociology
Level 9, Human Science Building
10 Symonds Street, Auckland
Phone: +64 9 373 7599 ext 88614

The University of Auckland
Private Bag 92019
Auckland, New Zealand

অংশগ্রহণকারীদের তথ্য প্রদানকারী ফরম (PIS Form) (সম্ভাব্য অংশগ্রহণকারীদের প্রতি)

গবেষণা / প্রোজেক্ট শিরোনাম: বাংলাদেশী মধ্যবিত্ত শ্রেণীর পণ্য ব্যবহার/ ভোগ এর ধরন: উপনিবেশ-উত্তর নৈতিক অর্থনীতির (moral economy) প্রাসংগিকীকরণ

গবেষকের নাম: ঋতুপর্ণা রায়

গবেষণা পরিচিতি: এই গবেষণাটি ঋতুপর্ণা রায় কর্তৃক তার অকল্যাড ইউনিভার্সিটির সমাজবিজ্ঞান বিভাগের অধীনে পিএইচডি (PhD) ডিগ্রির অংশ। এই গবেষণার উদ্দেশ্য হলো বাংলাদেশী মধ্যবিত্ত পরিবার এর ভোগের (consumption) ধরণ (patterns) পরীক্ষা করা।

প্রোজেক্ট এর বর্ণনা এবং আমন্ত্রণ: আমার গবেষণার মাধ্যমে আমি উৎঘাটন করব যে কিভাবে বাংলাদেশী মধ্যবিত্ত পরিবারে সাধারণ প্রযুক্তি/পণ্য (যেমন, মোবাইল ফোন, টেলিভিশন, এবং গৃহস্থালির সরঞ্জাম) ক্রয় এবং ব্যবহার করা হয়।

পশ্চিমা বিশ্বে বাংলাদেশ অধিকাংশ সময় পরিচিতি পায় একটি ব্যর্থ রাষ্ট্র হিসেবে যে কিনা পশ্চিমা সাহায্য এর উপর নিরভরশিল। দেশটির বিশাল মধ্যবিত্ত শ্রেণী এবং তাদের জীবনযাত্রা সবসময় উপেক্ষিতই থেকে যায়। আমি আশা করছি যে আমার গবেষণা এই ভারসাম্যহীনতা দূর করে বাংলাদেশী মধ্যবিত্ত পরিবারের ভোগের ধরণ (consumption pattern) উৎঘাটন করতে সক্ষম হবে। এই গবেষণার অংশ হিসেবে মধ্যবিত্ত পরিবারে অংশগ্রহণমূলক পর্যবেক্ষণ (participant observation) এবং পরিবেশের সদস্যদেরকে এক ঘণ্টাব্যাপী অর্ধ- কাঠামোবদ্ধ (semi-structured) সাক্ষাৎকার গ্রহণ করা হবে।

যেকোনো পরিবার / খানা যাদের নিম্নবর্ণিত বৈশিষ্ট্য গুলির সাথে সাদৃশ্য আছে তাদেরকে এই গবেষণায় অংশগ্রহণের জন্য আমন্ত্রণ জানানো হচ্ছে:

- পরিবেশের সদস্যরা নিজেদেরকে মধ্যবিত্ত মনে করে
- পরিবারে পিতামাতা এবং সন্তান আছে
- অন্তত একজন পিতা বা মাতার সুস্থিত এবং ভাল বেতনের চাকুরি আছে

বি.দ্র. এই গবেষণায় অংশগ্রহণ সম্পূর্ণ ঐচ্ছিক। আপনি ইচ্ছা করলে গবেষণায় অংশগ্রহণ থেকে বিরত থাকতে পারেন।

গবেষণার কার্যপ্রণালী

অংশগ্রহণমূলক পর্যবেক্ষণ (participant observation): গবেষক ঋতুপর্ণা রায় অংশগ্রহণকারী পরিবার/খানা গুলিতে ৩ থেকে ৬ বার যাবেন এবং সেখানে দীর্ঘ সময় অতিবাহিত করবেন। এই সময় তিনি গৃহস্থালির পণ্য / প্রযুক্তির (যেমন, মোবাইল ফোন, টেলিভিশন, এবং গৃহস্থালির সরঞ্জাম) ক্রয়, ব্যবহার, মালিকানা ইত্যাদির ধরন সম্পর্কে তথ্য নথিভুক্ত করবেন।

অর্ধ-কাঠামোবদ্ধ (semi-structured) সাক্ষাৎকার: অংশগ্রহণকারী পরিবার এর সদস্যদের এক ঘণ্টাব্যাপী অর্ধ-কাঠামোবদ্ধ সাক্ষাৎকার (semi-structured interview) গ্রহণ করা হবে। সাক্ষাৎকার মূলত নিম্নোক্ত বিষয় এর উপর ভিত্তি করে হবে, যেমন, দৈনন্দিন প্রযুক্তি/ পণ্য এর ক্রয়, ব্যবহার এর ধরন, ব্যবহার এর রুটিন ইত্যাদি। সাক্ষাৎকার এর মাধ্যমে আমি মূলত জানার চেষ্টা করবো যে পরিবারের সদস্যরা তাদের দৈনন্দিন প্রযুক্তি/ পণ্য এর উপর কি ধরনের গুরুত্ব আরোপ করে থাকে। আপনার প্রদত্ত সকল তথ্য/উপাত্ত অডিও রেকর্ড করা হবে।

ভাষা: অংশগ্রহণকারীদের সুবিধা বিবেচনা করে সাক্ষাৎকার গুলি বাংলা ভাষায় গ্রহণ করা হবে।

গবেষণার ফলাফল: আমি গবেষণায় অংশগ্রহণকারীদের কে নিম্নোক্ত নথি সরবরাহ করব:

- অংশগ্রহণকারীর সাক্ষাৎকার এর প্রতিলিপি সরবরাহ করা হবে এবং তারা ১৪ ফেব্রুয়ারী, ২০১৫ এর আগে যেকোনো সময় তাদের প্রদত্ত উত্তর পরিবর্তন (modification) করতে পারে।
- এছাড়াও অংশগ্রহণকারীদের কে এই গবেষণার সার্বিক ফলাফল ইংরেজী এবং বাংলা উভয় ভাষায় সরবরাহ করা হবে।

উপহার: এই গবেষণায় অংশগ্রহণ এর জন্য গবেষক অংশগ্রহণকারীদের কে সামান্য কিছু উপহার দিয়ে কৃতজ্ঞতা এবং ধন্যবাদ জানাবেন।

তথ্য সংরক্ষণ/ধারণা/ ধংসকরন/ ভবিষ্যৎ ব্যবহার

আপনাদের প্রদত্ত সকল তথ্য/উপাত্ত ঋতুপর্ণা রায় এর পিএইচডি (PhD) এর গবেষণায় ব্যবহৃত হবে। এছাড়া আপনাদের প্রদত্ত তথ্য/উপাত্ত ভবিষ্যতে কোন কনফারেন্স পেপার বা জার্নাল এর প্রকাশনায় ব্যবহৃত হতে পারে।

আপনাদের প্রদত্ত সকল তথ্য/উপাত্ত সবসময় সম্পূর্ণ গোপনভাবে সংরক্ষণ করা হবে। ছয় বছর পর ইলেকট্রনিক ফাইল মুছে ফেলা এবং কাগজ এর নথি টুকরো করে ফেলার মাধ্যমে সকল তথ্য/উপাত্ত ধংস করা হবে। কোনো ধরণের শনাক্তকরণ তথ্য/উপাত্ত যেমন আপনার নাম, ই-মেইল, ঠিকানা প্রচার বা বিতরণ করা থেকে বিরত থাকা হবে।

অংশগ্রহণ প্রত্যাহারের অধিকার

আপনি যদি এই অংশগ্রহণ করে থাকেন, আপনার অধিকার আছে ১৪ ফেব্রুয়ারী, ২০১৫ এর আগে যেকোনো সময় এই গবেষণা থেকে আপনার অংশগ্রহণ প্রত্যাহার করার। সেক্ষেত্রে আপনার প্রদত্ত সকল তথ্য/উপাত্ত গবেষণা থেকে বাদ দিয়ে দেওয়া হবে।

গোপনীয়তা

আমি তথ্য/উপাত্ত এর গোপনীয়তা রক্ষার জন্য সবচেয়ে চেষ্টা করব। আপনার প্রদত্ত তথ্য/উপাত্ত এর অডিও রেকর্ডিং গবেষক নিজে প্রতিলিপি তৈরি এবং অনুবাদ করবেন। এই গবেষণায় কোন তৃতীয়পক্ষ সংশ্লিষ্ট থাকবে না।

যোগাযোগের ঠিকানা এবং অনুমোদন

যদি আপনি অংশগ্রহণে আগ্রহী হন, অনুগ্রহ করে গবেষক এর সাথে যোগাযোগ করুন। নিচে গবেষক এর সাথে যোগাযোগের ঠিকানা দেওয়া হোল।

ঋতুপর্ণা রায়

মোবাইল: +৬৪২১০৫৫০৮২৭

ই-মেইল: rroy890@aucklanduni.ac.nz

অথবা, আপনি এই নম্বরে ও যোগাযোগ করতে পারেন +৮৮০৭২১৭৭১২০৯

এই গবেষণার বিষয়ে আপনার কোন প্রশ্ন বা জিজ্ঞাসা থাকলে, আপনি নিম্নোক্ত ঠিকানায় যোগাযোগ করতে পারেন:

প্রফেসর অ্যালেন ফ্রান্স (বিভাগীয় প্রধান, সমাজবিজ্ঞান বিভাগ, অকল্যান্ড ইউনিভার্সিটি)

ফোন: +৬৪ ৯ ৩৭৩ ৭৫৯৯

ই-মেইল: a.france@auckland.ac.nz

ডঃ ব্রুস কার্টিস (গবেষণার তত্ত্বাবধায়ক, সমাজবিজ্ঞান বিভাগ, অকল্যান্ড ইউনিভার্সিটি)

ফোন: +৬৪ ৯ ৩৭৩ ৭৫৯৯ সম্প্রসারণ নম্বর ৮৮৬৫৮

ই-মেইল: b.curtis@auckland.ac.nz

ঋতুপর্ণা রায়

মোবাইল: +৬৪২১০৫৫০৮২৭

ই-মেইল: rroy890@aucklanduni.ac.nz

গবেষণার সাথে সংশ্লিষ্ট নৈতিকতা সম্পর্কিত যেকোনো ধরনের প্রশ্ন, তথ্য বা জিজ্ঞাসা এর জন্য অকল্যান্ড ইউনিভার্সিটির হিউম্যান পার্টিসিপেনটস ইথিকস কমিটি (The University of Auckland Human Participants Ethics committee) এর প্রধানের সাথে যোগাযোগ করুন।

The University of Auckland, Research Office, Private Bag 92019, Auckland 1142. Telephone 09 373-7599 extn.87830/ 83761. Email: humanethics@auckland.ac.nz.

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Appendix E



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The University of Auckland
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সম্মতি প্রদান ফরম (Consent Form) (সম্ভাব্য অংশগ্রহণকারীদের প্রতি) এই ফরমটি ছয় বছর পর্যন্ত সংরক্ষণ করা হবে

গবেষণা / প্রোজেক্ট শিরনাম: বাংলাদেশী মধ্যবিত্ত শ্রেণীর পণ্য ভোগ এর ধরনঃ
উপনিবেশ-উত্তর নৈতিক অর্থনীতির প্রাসংগিকীকরণ

গবেষকের নাম: ঋতুপর্ণা রায়

আমি অংশগ্রহণকারীদের তথ্যপ্রদানকারী ফরমটি পড়ে গবেষণার ধরণ, এবং কেন আমাকে এই গবেষণার অংশগ্রহণকারী নির্বাচন করা হয়েছে তা অনুধাবন করতে/ বুঝতে সক্ষম হয়েছি। অংশগ্রহণ এর পূর্বে আমি গবেষক কে প্রশ্ন করার সুযোগ পেয়েছি এবং আমার সকল প্রশ্নের গ্রহণযোগ্য এবং সন্তোষজনক উত্তর দেওয়া হয়েছে।

- আমি এই গবেষণায় অংশগ্রহণে সম্মত হয়েছি।
- আমি বুঝতে পেরেছি যে গবেষক আমার বাড়িতে একাধিকবার আসবেন এবং সেখানে দীর্ঘ সময় অবস্থান করবেন। এই সময় তিনি আমার পরিবারের / বাড়ির সদস্যদের দৈনন্দিন প্রযুক্তি / পণ্য ব্যবহার সংক্রান্ত কর্মকাণ্ড পর্যবেক্ষণ এবং নথিভুক্ত করবেন।
- আমি বুঝতে পেরেছি যে সংগ্রহীত তথ্য/ উপাত্ত গবেষক এর পিএইচডি (PhD) এর গবেষণায় ব্যবহৃত হবে। এছাড়াও, গবেষক এই গবেষণার ফলাফল যেকোনো কনফারেন্স পেপার বা প্রকাশনার জন্য ব্যবহার করতে পারেন।
- আমি বুঝতে পেরেছি যে আমি ২০১৫ সালের ১৪ ফেব্রুয়ারী তারিখের আগে যেকোনো সময় এই গবেষণা থেকে আমার অংশগ্রহণ প্রত্যাহার করতে পারি।

- আমি বুঝতে পেরেছি যে এই গবেষণার গবেষক এবং তত্ত্বাবধানকারীরা (সুপারভাইসর) আমার প্রদানকৃত উপাত্তের গোপনীয়তা সংরক্ষণে সর্বচ্চ চেষ্টা করবেন।
- আমি আমার প্রদানকৃত তথ্য/ উপাত্ত অডিও রেকর্ড এ সম্মতি প্রদান করছি।
- আমি বুঝতে পেরেছি যে আমার প্রদানকৃত তথ্য/ উপাত্ত এর অডিও রেকর্ড এর কোন কপি প্রদান করা হবে না। তবে, আমাকে ১৪ ফেব্রুয়ারী ২০১৫ এর আগে যেকোন সুবিধাজনক সময়ে আমার প্রদানকৃত তথ্য/ উপাত্তের প্রতিলিপি (transcript) পরিবর্তন এবং সম্পাদনার সুযোগ দেওয়া হবে। এছাড়াও, গবেষকের পিএইচডি (PhD) ডিগ্রি সম্পন্ন হওয়ার পর আমাকে গবেষণার প্রাপ্ত ফলাফল এর সংক্ষিপ্তসার (executive summary) বাংলা এবং ইংরেজী উভয় ভাষায় প্রদান করা হবে।
- আমি বুঝতে পেরেছি যে, এই গবেষণার সাথে কোন তৃতীয় পক্ষ সংশ্লিষ্ট নয় এবং গবেষক নিজে আমার প্রদানকৃত তথ্য/ উপাত্তের অডিও রেকর্ড এর প্রতিলিপি এবং অনুবাদ করবেন।
- আমি বুঝতে পেরেছি যে, সংগ্রহের পর সকল উপাত্ত ছয় বছর পর্যন্ত সংরক্ষণ করা হবে। এরপর সকল তথ্য/ উপাত্ত নষ্ট করে ফেলা হবে।

নাম _____

সাক্ষার _____ তারিখ _____

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Appendix F



THE UNIVERSITY OF AUCKLAND
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গবেষণায় অংশগ্রহণকারী অন্ত্বেষণ (Advert)

বাংলাদেশী মধ্যবিত্ত শ্রেণীর পণ্য ব্যবহার/ ভোগ এর ধরন: উপনিবেশ-উত্তর
নৈতিক অর্থনীতির প্রাসংগিকীকরণ

আমার নাম ঋতুপর্ণা রায়। আমি একজন বাংলাদেশী নাগরিক এবং বর্তমানে নিউজিল্যান্ডে অকল্যান্ড ইউনিভার্সিটির সমাজবিজ্ঞান বিভাগের অধীনে পিএইচডি (PhD)ক্যান্ডিডেট।

আমি আমার গবেষণার জন্য অংশগ্রহণকারী অন্ত্বেষণ করছি। আমার গবেষণার মাধ্যমে আমি মধ্যবিত্ত বাংলাদেশী পরিবারের পণ্য ব্যবহার/ ভোগের ধরণ (patterns of consumption) অনুসন্ধান করছি। পশ্চিমাবিশ্বে বাংলাদেশ অধিকাংশ সময় পরিচিতি পায় একটি ব্যর্থ রাষ্ট্র হিসেবে যে কিনা পশ্চিমা সাহায্য এর উপর নির্ভরশীল। দেশটির বিশাল মধ্যবিত্ত শ্রেণী এবং তাদের জীবনযাত্রা সবসময় উপেক্ষিতই থেকে যায়। আমি আশা করছি যে আমার গবেষণা এই ভারসাম্যহীনতা দূর করে বাংলাদেশী মধ্যবিত্ত পরিবারের দৈনন্দিন জীবনে পণ্য ব্যবহার/ ভোগের ধরণ (consumption pattern) উৎঘাটন করতে সক্ষম হবে।

আপনি এবং আপনার পরিবার কি এই গবেষণায় অংশগ্রহণে আগ্রহী? এই গবেষণার অংশ হিসেবে আপনার পরিবারে আমি অংশগ্রহণমূলক পর্যবেক্ষণ (participant observation) করব, এছাড়াও আপনার পরিবারের সদস্যদের এক ঘণ্টাব্যাপী অর্ধ-কাঠামোবদ্ধ (semi-structured) সাক্ষাৎকার গ্রহণ করা হবে। সাক্ষাৎকার মূলত নিম্নোক্ত বিষয় এর উপর ভিত্তি করে হবে, যেমন, দৈনন্দিন প্রযুক্তি/ পণ্য (মোবাইল

ফোন, টেলিভিশান, এবং গৃহস্থালির সরঞ্জাম)এর ক্রয়, ব্যবহার এর ধরণ, ব্যবহার এর রুটিন ইত্যাদি।

আমি মধ্যবিত্ত বাংলাদেশী পরিবার অনুসন্ধান করছি যারা নিজেদেরকে নিম্নবর্ণিত বৈশিষ্ট্য গুলির সাথে সাদৃশ্যপূর্ণ বলে গণ্য করে থাকেনঃ

- পরিবের এর সদস্যরা নিজেদেরকে মধ্যবিত্ত মনে করেন
- পরিবারে পিতামাতা এবং সন্তান একত্রে বসবাস করছেন
- অন্তত একজন পিতা বা মাতার সুস্থিত এবং ভাল বেতনের চাকুরি আছে

আমার গবেষণা উদঘাটন করবে যে বাংলাদেশী মধ্যবিত্ত পরিবার এ পণ্য/প্রযুক্তি (যেমন,মোবাইল ফোন, টেলিভিশান, এবং গৃহস্থালির সরঞ্জাম)কিভাবে ক্রয় এবং ব্যবহার করা হয়। বাংলাদেশী মধ্যবিত্ত পরিবের এর পন্য ব্যবহার/ভোগ এর বিষয়ে এর আগে কোন গবেষণা হয়নি। এই গবেষণা সেই অভাব /শূন্যস্থান পূরণে অবদান রাখবে। এই গবেষণার অংশ হিসেবে মধ্যবিত্ত পরিবারে অংশগ্রহণমূলক পর্যবেক্ষণ (participant observation)করা হবে এবং পরিবেরের সদস্যদেরকে এক ঘণ্টাব্যাপী অর্ধ-কাঠামোবদ্ধ (semi-structured) সাক্ষাৎকার গ্রহণ করা হবে।

অংশগ্রহণমূলক পর্যবেক্ষণ(participant observation): গবেষক ঋতুপর্ণা রায় অংশগ্রহণকারী পরিবার/খানা গুলিতে ৩ থেকে ৬ বার যাবেন এবং সেখানে দীর্ঘ সময় অতিবাহিত করবেন। এই সময় তিনি গৃহস্থালির পণ্য / প্রযুক্তির (যেমন, মোবাইল ফোন, টেলিভিশান, এবং গৃহস্থালির সরঞ্জাম)ক্রয়, ব্যবহার, মালিকানা ইত্যাদির ধরন সম্পর্কে তথ্য নথিভুক্ত করবেন।

অর্ধ-কাঠামোবদ্ধ (semi-structured) সাক্ষাৎকারঃ অংশগ্রহণকারী পরিবার এর সদস্যদের এক ঘণ্টাব্যাপী অর্ধ-কাঠামোবদ্ধ সাক্ষাৎকার (semi-structured interview) গ্রহণ করা হবে। সাক্ষাৎকার মূলত নিম্নোক্ত বিষয় এর উপর ভিত্তি করে হবে, যেমন, দৈনন্দিন প্রযুক্তি/পণ্য এর ক্রয়, ব্যবহার এর ধরণ, ব্যবহার এর রুটিন ইত্যাদি। সাক্ষাৎকার এর মাধ্যমে আমি মূলত জানার চেষ্টা করবো যে পরিবারের সদস্যরা তাদের দৈনন্দিন প্রযুক্তি/ পণ্য এর উপর কি ধরনের গুরুত্ব আরোপ করে থাকে। আপনার প্রদত্ত সকল তথ্য/উপাত্ত অডিও রেকর্ড করা হবে।

ভাষাঃ অংশগ্রহণকারীদের সুবিধা বিবেচনা করে সাক্ষাৎকার গুলি বাংলা ভাষায় গ্রহণ করা হবে।

আপনাদের প্রদত্ত সকল তথ্য/উপাত্ত ঋতুপর্ণা রায় এর পিএইচডি (PhD) এর গবেষণায় ব্যবহৃত হবে। এছাড়া আপনাদের প্রদত্ত তথ্য/উপাত্ত ভবিষ্যতে কোন কনফারেন্স পেপার বা জার্নাল এর প্রকাশনায় ব্যবহৃত হতে পারে।

আপনাদের প্রদত্ত সকল তথ্য/উপাত্ত সবসময় সম্পূর্ণ গোপনভাবে সংরক্ষণ করা হবে। ছয় বছর পর ইলেকট্রনিক ফাইল মুছে ফেলা এবং কাগজ এর নথি টুকরো করে ফেলার মাধ্যমে সকল তথ্য/উপাত্ত ধংস করা হবে। কোনো ধরণের শনাক্তকরণ তথ্য/উপাত্ত যেমন আপনার নাম, ই-মেইল, ঠিকানা প্রচার বা বিতরণ করা থেকে বিরত থাকা হবে।

উপহারঃ এই গবেষণায় অংশগ্রহণ এর জন্য গবেষক অংশগ্রহণকারীদের কে সামান্য কিছু উপহার দিয়ে কৃতজ্ঞতা এবং ধন্যবাদ জানাবেন।

যদি আপনি অংশগ্রহণে আগ্রহী হন, অনুগ্রহ করে গবেষক এর সাথে যোগাযোগ করুন। নিচে গবেষক এর সাথে যোগাযোগের ঠিকানা দেওয়া হল।

ঋতুপর্ণা রায়

মোবাইলঃ +৬৪২১০৫৫০৮২৭

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অথবা, আপনি এই নম্বরে ও যোগাযোগ করতে পারেন +৮৮০৭২১৭৭১২০৯

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