

Chapter 7

Being Meaningfully Mobile

Mobile Phones and Development

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The broad question I address in this chapter is ‘what makes mobility, particularly related to mobile phones, meaningful?’ or put differently ‘in relation to mobile phones, what does it mean to be meaningfully mobile?’ The concept of meaningful mobility was introduced in relation to gender and mobile phones in India (Tacchi, Kitner and Crawford, 2012) as a way of arguing that while mobile phones can be seen as active agents and facilitators of change or development (in that case within the evolving field of gendered relationships), they must be understood within specific uses and settings in order to understand the part they play in social and economic meaning making. The ways in which as researchers we understand ideas of mobility—incorporating domains such as the technical, social, economic, political and spatial—determines what we research and the kinds of meanings we uncover or develop in relation to mobile phones and development. Here I want to explore the concept of meaningful mobilities further in order to challenge two types of determinism in relation to technology and development. First is technological determinism and the need to balance what I will call contextualized affordances. The second is a form of cognitive determinism that shapes the field of communication for development and social change and the types of research questions we ask.

I begin this chapter by thinking through some of the implications, in a broad sense, of technological determinism for media and communication for development and social change. I then explore this further through the two determinisms, technological and cognitive, which I illustrate through examples. In relation to the first determinism, I argue that there are at least two important things that need to be taken into account when considering technological determinism within a communication for social change agenda. We must consider the affordances, or constraining and enabling material

possibilities of media technologies, and we must consider contexts. A balance is needed between what technologies provide in terms of affordances as the possible properties of technologies and broad and specific contextual constraints and opportunities. As an example I discuss the implications of mobile phones and disadvantaged women in India drawing upon research that examines the use of phones by women in a slum cluster and initiatives to improve the position of women in terms of lives and livelihoods (see also Tacchi et al., 2012) in India. Here I apply the concept of meaningful mobilities to ask what role mobile phones play in women's changing situations and agencies in spaces that are highly complex, structured, constrained and subject to uncertainty.

Building on these examples, I then move on to the second determinism, to explore how disciplinary and other fields can be seen to frame and in some cases over determine what questions are asked when we think about technology and development. Here I suggest we need to take a step back and think about the types of framing that we need to pay attention to; how development and other powerful structures and systems can approach mobile phones to frame perceptions of groups of people in society and therefore highlight and prioritize particular characteristics and differences over others. As researchers, how mobile phones and mobilities are framed points us to some extent towards certain interpretations or subject matter. Technologies and populations are framed within certain frames and value systems that may distract us from other possibly more interesting explorations. I conclude the chapter by discussing what these examples tell us about technological determinism and media and communication for development and social change, and suggest how the concepts of contextualized affordances and meaningful mobilities (when appropriately framed) can help us to move forward.

TECHNOLOGICAL DETERMINISM AND MEDIA AND COMMUNICATION FOR DEVELOPMENT AND SOCIAL CHANGE

Technology is generally understood to be an important and determining factor of development. Notions of development that emerged following the Second World War incorporated modernization theory frameworks, with technology and progress conceived of as interlinked and linear. Developing countries in the global south were framed as not having reached the stage of development of countries situated in the global north, and framed within neo-colonial constructions (Crewe and Harrison 1998; Escobar, 1995). Development as a concept frames our thinking about much of the world (Ferguson, 1990; Servaes, 1999). It is 'an enormously powerful set of ideas which have guided thought

and action' since the mid 20th century, with development institutions spending millions of dollars each year, developing and operationalizing countless plans, workers and policies (Gardner and Lewis, 1996:2). The introduction of 'modern' technologies are part of an agenda to move societies forward on the pathway to development (Waisbord, 2001). Production technologies and industries for farmers, medical technologies and family planning, mass media programming and media infrastructure such as a free press, radio, and (more recently) internet and mobile phone are part of central notions of technology "transfer" that are core to agendas promoted to shape and change socioeconomic situations (Gardner and Lewis 1996).

Communication, media and development have been connected as fields of knowledge and of practice, with a range of names such as communication for development, development communication, media development, communication for social change (Manyozo, 2012; Waisbord, 2008; Wilkins, 2000; Wilkins & Mody, 2001). Manyozo (2012) suggests there are three distinct but not entirely separate main approaches within what he terms media and communication for development; media for development, media development, and participatory or community communication. Underlying theories of media and communication for development have shifted over time from technology diffusion and transfer models towards participatory communication paradigms, although Manyozo argues there is a persistent dominant binary between the two. He argues that we need to move beyond this binary and that our focus should be on participation, policy and power. Reasonably constant themes have defined the broad field since the 1970s (Servaes 2008) with communication techniques and media seen as participatory processes for social change, and dialogue seen as key to socially inclusive processes (for example, Fraser and Villet 1994; Rogers 1976; UN 1997; WCCD 2006). Development communication as exchange, meaning creation and processes rather than the transmission of messages now dominates theoretical work, while in practice earlier modernising paradigms and economic growth approaches still persist (Fraser & Restrepo-Estrada, 1998; Inagaki, 2007; Mansell 2011). How do we explain the persistence of modernising paradigms that focus on technologies and linear progress, in a participatory development agenda that prioritises processes and dialogue? It might be argued that the modernisation theory hinges on technological determinist ideas, while participatory approaches lean towards social determinism.¹

In the field of Information and Communication Technology for Development (ICT4D) ideas of technological innovation for economic growth tend to dominate. Contrary to the participatory approaches in media and communication for development, efficiency in the dissemination of information is more central. This places most of the agency on the technology and its developers rather than on poor and marginalised populations (Unwin 2009). ICT is seen

by some in this field as making a progressive contribution to development, but largely missing its inherent promise for transformation. According to Heeks (2010) disruptive technologies can deliver resources from North to South, and can transform development itself. Such a focus on the transformational qualities of ICT as a universal good and universal concept tend not only to obscure particularities of poor and marginalised populations but also reinforce normative modernising models of development (Unwin 2009). They also risk maintaining a notion of technology as a solution to the problems of development, in particular through increased efficiency in production (Heeks 2005). While the promotion of new ICTs for development has led to innovative experiments, some also observe a rapid evolution and expansion of technological determinist responses from development agencies (Article19 2005, p. 3).

Surely we cannot ignore the inherent possibilities and implications of 'transformative' technologies, but just as surely we need to understand the implications of technological determinist approaches. So, for example, ICTs as transformative technologies have been said to create new 'knowledge economies' and 'networked societies' (Castells 1996; Selwyn 2004). They are also said to have created what is termed a 'digital divide', whereby those who are not part of new technological developments are disadvantaged or left behind. As Robin Mansell (2002) pointed out, there have been inadequate interpretations of the causes and consequences of the 'divide', focused on infrastructure rather than people, so that actions to 'bridge' the divide or to understand its consequences were seen as stemming from the ways in which social and technical relationships were understood at a position removed from actual practices. In a technological determinist frame of thinking, following Postman (1993) and McLuhan and Fiore (1967), when people have access it is the form or the medium that shapes uses and changes cultures. Yet if this were the case, we might see far more 'successes' in the media, communication, and ICT for development interventions that view technology as a tool for change. And yet mobile phones have achieved high levels of penetration not through the efforts of development agencies but through commercial business expansion mixed with deregulation and increased competition, to be 'generally freedom-enhancing, and that is an appropriate point of departure for the hagiography of the mobile phone' (Sen, 2010:2).

Coleman's (2010) review of ethnographies of digital media tells us how important context is to understanding media, but it also demonstrates that there are particular affordances and constraints implicated in these technologies, however differently experienced they might be in a range of cultural, social and political contexts. Following Williams (1974:133), while we have to reject technological determinism, we should not substitute it for the notion of determined technology. Tenhunen's (2008) study of mobile phone use in

rural India shows that technologies not only amplify ongoing processes of cultural change, which we might consider to be a form of local appropriation of technology or determined technology, they can also be seen to *influence* social, cultural and political processes. As Williams states:

We have to think of determination not as a single force, or a single abstraction of forces, but as a process in which real determining factors—the distribution of power or of capital, social and physical inheritance, relations of scale and size between groups—set limits and exert pressures, but neither wholly control nor wholly predict the outcome of complex activity within or at these limits, and under or against these pressures. (1974:133)

Within development there is a preference for linear, cause effect models, with implications for structural and power relations, and hierarchies of knowledge. Mansell (2011) notes development's preference for a 'one knowledge system', which fails to appreciate the political nature of knowledge, and the importance of multiple knowledges. Escobar's work stridently critiques developments' ignorance of the complex cultural constructions of local knowledges and their modes of operation and relations to social and cultural fields (Escobar, 1995 and 2007). So it is not just about whether the focus is on technology, or on people or contexts—it is more than this. It is about how knowledge and experiences are understood and valued, and the implications of this. Yet externally engineered technologies play a role in our development agendas—in shaping and framing what we do and how we think about and prioritise development agendas—telecentre programs for example reveal our underlying yet often implicit notions and models of both technology and development (Gurstein, 2011).

DETERMINISM 1: TECHNOLOGICAL DETERMINISM AND CONTEXTUALIZED AFFORDANCES

Technologies for communication, from the printing press to the mobile phone, can be seen to effect the evolution of societies (Ong, 1982), but the question of how far they drive social change, set the conditions for social change and determine that change is contested. We might rather look for the 'operative relationship' (Williams, 1974) between modern technologies and complex societies. In this way, we can avoid polarizing accounts that either lean too far towards technological determinism, or completely ignore the inherent implications of modern technologies. This is to argue that we cannot understand the relationship between technologies and social change without capturing the particular details of how they are experienced in the everyday. How media and communication practices relate to the places, spaces, relationships,

routines and everyday lives of people are complex and embedded. Thus, in development communication, we might usefully think about contextualized affordances. We can explore the notion of contextualized affordances further by considering some of the ways in which the smartphone has been thought about in development, and some examples of use.

Mobile phones in development are often viewed through economic and livelihood perspectives (Osorio and Postill, 2010). This relates to a dominance of an economic growth approach to development. Yet the goals of development are not purely economic, including broader human development as well as capabilities and freedoms (Deneulin with Shahani, 2009; Sen, 1999). There is no empirically demonstrable ‘automatic’ connection between high GDP and ‘the ability of people to flourish’ (Alkire and Deneulin, 2009:15); well-being and freedom are not straightforwardly linked to incomes (Nussbaum, 2011).

Mobiles for Development (M4D) as a field has a ‘dual heritage’ (Donner, 2010). It is framed by ideas of the mobile as an enabler of choice, and framed within a broader ICT4D perspective where technologies can be designed and woven into social systems to bring about social change. Donner calls this ‘embedded directionality’, which requires a development goal as well as an appreciation of the social structures and contexts that services and applications can be introduced into. The focus is often skewed towards livelihoods, rather than lives. Donner (2009) recognizes the blurring of lives and livelihoods in mobile phone use, including their use and value for self-expression, agency, and social connection in addition to economic activities. Yet, as he points out, ‘most benefits of the mobile in development processes remain unobserved and under-studied, in unorganized “peer-to-peer” voice calls and text messages’ (Donner, 2010:9). Mobile phones are held up as a key instrument of development, important because of the scale of uptake in the global South, and the fact that they provide the first access to electronically mediated communication for millions of people. However, ethnographic research on their everyday uses and implications in developing countries points to a range of implications that challenge “monolithic visions” of their effects (Ling and Horst, 2011). Here we might then ask, in specific contexts, what are the affordances that matter, and what makes mobility meaningful?

To illustrate these issues, we can draw upon ethnographic research in an Indian slum,² giving examples of three women and their use of phones, including landline and smart phones. We can then compare this with the mobile phone use of women in rural Gujarat, encountered through research with the Self Employed Womens Association (SEWA).³ This helps to illustrate the range of ways women manage their lives within highly structured and restricted environments, and the various uses and consequences of phones and ideas and practices of mobilities within this. The first woman

I discuss used a landline rather than mobile phone, but nevertheless the story works well to illustrate these tensions and complex relations between restrictions and mobilities.

Savita and her family live in a large slum cluster in Delhi, which in 2004 included her husband and four sons (then aged between 14 and 21 years). A runaway boy of 13 also lived with them and helped them run a tea shop on the busy road they lived on, which marked one of the boundaries of the slum, and set it apart from the neighbouring legal settlement. Savita's house had two rooms, a toilet and a wired telephone connection (a landline). In the context of this slum, they were doing fairly well. Apart from running the tea-shop and a catering business, three of their sons were working and contributing to the household income. Rajbeer was Savita's husband, and initially our main point of contact who took the lead in answering our questions, even when they were directed at Savita. Rajbeer had suffered a serious accident some years before and was chronically ill and unable to work outside the home.

Plans were underway for the two oldest sons to get married to two sisters from a lower-middle class family. Savita and Rajbeer were planning to invest in another *jhuggi*⁴ in the same camp, to accommodate the extending family. But just two months prior to the weddings Rajbeer died. Savita's position in the family transformed dramatically, as she became head of the household. While Rajbeer was alive we were given a sense of a warm, loving and supportive relationship with his parents who live nearby. However, soon after the two week mourning period, when discussions about rescheduling the double wedding were underway, Savita took a stand not to postpone it contrary to the wishes of her in-laws. This was her first act of defiance and open acknowledgement of an acrimonious relationship with her in-laws. Savita's mobility—spatial, social and economic—were strictly contained in her role as a wife and daughter-in-law. But once she was head of the family, the possibilities for mobility increased. She visited her maternal relatives living on the outskirts of the city, a trip for which she would previously have had to seek permission and funds from her husband. She now controlled the businesses, made household decisions, and arranged the weddings. Her access to the phone also significantly changed.

During our regular visits before and following Rajbeer's death, our conversations were often interrupted by calls on their landline. Until Rajbeer's death, he or one of his sons or the live-in help would answer it. Savita did not answer the phone or have a 'direct' conversation on it. Even if the caller inquired after her, her husband or sons would relay the conversation back and forth. In one of our conversation about the potential of the mobile phone, Rajbeer made it clear that he objected to the increasing freedoms or mobilities available to women, including working outside the home, travelling beyond their neighbourhoods unescorted, and the use of mobile phones. While he saw

phones as corrupting influences for women, his oldest son was one of the few local men at that time who owned one and Rajbeer saw this as important for his son's work and career. The control of telephones in this household, like most others here, lay with the men.

On one occasion, during the early period of mourning, the telephone rang. A number of Savita's female neighbours, relatives and friends were present. They observed and listened in silence as Savita received the phone call. Afterwards they asked her to repeat the entire conversation twice. Savita had been nervous accepting this call, but quickly Savita's ease and confidence to use the phone increased. She began conducting much of her business and social relationships through the phone, especially since as a widow her physical and social mobility was still restricted in some ways, as she was required to be in extended mourning for at least a year.

When her two daughters-in-law were brought within the household after marriage, Savita instituted a strict regime of control over their movements, and use of phones, similar to the one she had to abide by while Rajbeer was alive. She saw it now as her responsibility to uphold a level of family morality and virtue, which is visibly demonstrated through a range of constraints and restrictions. The notion that access to technologies can increase economic or social mobility in any straightforward way is clearly too simplistic as a way of understanding Savita's increased and indeed differently constrained mobility following the death of her husband. Two young women in an adjoining slum, Rani and Monica, further demonstrate how the social, cultural and moral landscapes within which these women live, can determine and constrain their use of mobile phones, as well as how the phones can help them in some ways to resist or defy them.

Rani, aged 26, and Monica, aged 21, are neighbours who both live in women-dominated muslim households in a neighbouring camp in the same slum cluster as Savita. Rani and Monica live completely different lives, despite some similarities in their situations. Rani lives with her aging mother, younger brother, and her daughter aged 9. She also has two younger sisters who are married and live with their in-laws. Her father was a drug-addict and died a few years ago. Rani left her abusive husband when she was 18, a year after her marriage, and returned home. Their house has four rooms, with two rented out to other families. Rani's mother works as a domestic help in a nearby middle-class household. Rani's contribution to the well-being of the family has been significant. She paid to extend the home from a one room dwelling to four rooms. She also arranged her two sister's marriages, including the financial aspects. Rani generated these funds by working as a sex-worker.

She has a few regular clients in and around Delhi, none from her slum cluster which is a deliberate decision. It is important for Rani to both support

her family financially, and to protect their reputation, especially for her young daughter. She had tried working as a maid in a nearby middle class settlement, but she found the treatment she received humiliating, and in some cases threatening. She found her treatment as a sex worker (with a few rare exceptions), especially given her establishment of regular clientele, far more respectful and lucrative. She has earned enough money to improve the condition of her family, but also fears the implications for them of the kind of work she does if it becomes known. While she is aware that some do know her line of work, she has made useful connections to local crime figures and wealthy men, and so neither her family or neighbours condemn her openly since her family depend on her earnings, and her neighbours occasionally need to seek her help when they have local issues, 'My family is so hypocritical; of course they know where the money is coming from and had no issue about taking it when they needed but if there is the slightest issue, they call me a *randi*,⁵ and say I bring shame to the family. Earlier I used to get affected by what they said, but now I retort back and say, who is worse a *randi* or those who eat of her living'.

Rani's particular position has allowed her a rarely available economic, social and spatial mobility, and yet it is also highly precarious. Rani also has a level of self-taught expertise with electronics and can take apart mobile handsets. Both local men, women and young girls often came to her to learn the functionalities of their new phones. She entered the second-hand and extra-legal 'mobile markets' selling handsets (some stolen) to her extended networks in and beyond the slum. She herself carries two mobiles, and has three mobile connections. Only one connection is in her name, which she never uses when dealing with her clients. Even though she is illiterate she sends and receives several text messages in a day. Some of them are conversational, but most of them are forwarded poetry and words of affection, which her brother or one of her educated neighbours such as Monica read to her.

We met Monica's mother one afternoon in late 2011. She runs a general store in the slum. As the only store catering to a few hundred households, it does thriving business. She runs the business with an iron-fist, and is revered and respected as *badi-khaala* (elder aunt). She is known for her astute business sense and is not shy to admit it herself: "I am an illiterate woman, but I was always keen on improving the situation for the family. If I had left it to my husband we would be still hand-to-mouth". Besides the corner store, they own four *jhuggis* and an apartment in a lower-middle class area in south-west Delhi. Three of the *jhuggis* are rented out augmenting the income from the shop. The afternoon we met her, she was approaching Rani to escort her to the Tihar Prison where her son was imprisoned having been involved in a burglary. Monica's mother would not consider Monica as an escort, and until her son was imprisoned Monica and her sister had lived in the apartment in

the lower-middle class area. When her son arrested she became worried about their safety because of regular police visits. She is especially concerned about Monica who is a college graduate and beautiful, and who attracts a lot of male attention.

After her graduation Monica studied a course in fashion merchandising, and found a job in an export house in the outskirts of Delhi. She commuted an hour each way, and loved her job, and the experience and exposure that it brought. However after only five months she left because, “Amma made it impossible. She would call me every half hour to inquire what I was doing, and if I did not answer the phone she would start calling the landline. It was most embarrassing. If I said I would reach home by seven, and was delayed on account of traffic or some work, she would get hysterical. The limit was when one-day she landed up at my work, because the previous night my boss—a man—had called about some work. I just could not take it”. *Baadi Khaala* does not regard her strict control over her daughter’s movements as oppressive or controlling, it is her duty, “young girls need to be protected. There are so many distractions, and we cannot allow her to go astray”. Her biggest fear is Monica marrying outside their religion, and her second biggest concern is a love marriage rather than arranged marriage.

Monica on the other hand accepts that she will marry a groom of her mother’s choice, but finds her mother’s day to day oversight extremely difficult to deal with. Her smart phone connection with the outside world stops her from ‘going mad’. She is constantly online through her latest Samsung handset. She uses a range of social media sites including Facebook, Orkut and Twitter. She also uses Skype to keep in touch with her extended family working in the Middle East and with her online friends. She has mild flirtations on Facebook and has 400+ friends, many of them unknown to her offline “of course Amma does not know what I am up to on the phone. She thinks I am texting, and gets annoyed at times but that is it. She does not know internet, or Facebook”. Monica knows that her mother would prohibit the use of the phone if she knew what she did with it, but for her it was a way of managing or circumventing the severe restrictions placed upon her in what she considered a harmless way. Offline her social life is highly monitored, online she is free.

The lack of socially sanctioned mobility is clear from the examples of the three women from the slum cluster. It was also evident in Gujarat where the Self-Employed Women’s Association (SEWA) was formed, as a women’s self-employed textile workers union in 1972 to help women gain greater security in unpredictable working environments. Since it formed it has grown to over 1.5 million members in a range of occupations, including farming, factory work, and home-based small businesses (Bhatt 2006). SEWA has over 600,000 members in the State of Gujarat. SEWA provides a social network

for poor women, designed to help them achieve greater security in terms of their livelihoods as well as agency. The members of SEWA who took part in our research talked about how SEWA gave them a sense of belonging, solidarity, identity, recognition, security, and greater social, cultural and political agency. SEWA has helped open up social, economic and political spaces for these women, along with access to a range of savings and loan schemes. SEWA has formed a lending organization, a marketing association, a bank, a learning institution, and an insurance group. It has also encouraged the use of new technologies like computers and mobiles, and provides loans for members to purchase mobile phones.

In the Great Rann of Kutch, there is one of the largest salt deserts in the world. Seasonal salt workers come here from across the state, and SEWA supports some of these daily wage earners to help them build sustainable livelihoods. The women working here spend months at a time far from home. A salt worker and her husband talked to us about how they leave their children with their extended family in the village. This is common practice for children of school age since the environment is extremely harsh and the work very hard. The woman talked about how the mobile phone allowed them to contact neighbours and send or receive messages about their children, giving them peace of mind that they can be contacted if there is a problem. This peace of mind may not make the backbreaking work any easier, but eases their concern for their children who they will not see for months.

Other members of SEWA talked about how mobiles allowed them to be away from home but not just in terms of easing their worry about their children. It was also a case of women being sanctioned to be outside of the home for work or for training, which previously had been very difficult because their role as wives and mothers meant staying at home. During a large meeting of more than 40 group leaders at the main SEWA Centre in Anand, women talked about the role of mobiles in facilitating networking with other women and SEWA groups. They also talked about the ability to work and travel outside the home, but a constant theme across the discussions and interviews was on the importance of their men 'allowing' their involvement with SEWA. Permission to become involved in SEWA had to be provided by the men, and the members had a range of strategies to help reassure them and persuade them to approve this. Permission was generally given once men appreciated and saw the advantages, most often in terms of helping the family to become more financially secure.

A widow called Kapilaben, a member of the SEWA executive committee, told us how she had never held a mobile or used one before she took a loan of 3000 rupees from her local SEWA association to buy one. A small lily farmer with just over half an acre of land, she picks the flowers each morning, and sells them in local markets. Before she had her mobile she would spend the

whole day going from one market to another, searching for traders to buy her flowers. Now she uses the mobile to line up the traders as she picks the flowers, delivering them by 9am. She has used the time and money saved to start another enterprise with a group of SEWA members, producing and selling goods through SEWA's Rural Distribution Network (RUDI).

Kapilaben had been a subsistence farmer, growing millet and other crops until her husband died and she had to find ways to earn extra income to support her family. She was trained in organic farming through SEWA, who helped her research lily farming, and provided loans to set up her business. She took out her third SEWA loan in 2003 to purchase her mobile phone. As well as income security, the kind of meaningful mobility she has achieved over the past few years also encompasses self-esteem, empowerment, and leadership, and as a widow who is head of her household, constraints on her mobility are lessened. Recognising the benefits of the kind of agency she has developed, she is now taking out another SEWA loan to support her daughter's education.

A similar theme across the women discussed above is that of their shifting lives, especially related to and emphasized by the constraints, insecurities and vulnerabilities that these women face. While much of the discussion of phones is linked in some way to economic aspects of life—business, income generation—the complex constraints and restrictions faced by the women cannot be ignored. In one example we could say that the mobile afforded a connection that restricted economic independence—Monica's short working life, interrupted by her mother's ability to contact her through mobile and landline—at the same time as it provided an unprecedented freedom in the online realm. Studying mobile phones can reveal how their uptake can make existing social relationships and processes of change more visible (Ling and Horst, 2011).

Mobile phones can help to challenge power structures and alter communicative practices and norms to an extent, yet as Sey (2011) points out, they are not so much a mechanism for development in themselves, but rather contribute to processes of development as they highlight, extend and magnify communicative and other capabilities. They can be thought of as agents within wider social and cultural change, and indeed can in highlight and amplify existing restrictions, insecurities and tensions. Underlying gender dynamics complicate our understanding of the role of mobiles (Chib and Chen, 2011). Tensions can emerge through challenges to social sanctions, as Wallis (2011) found through her study of mobile phones and labour relations for young migrant women in Beijing. Gender, age, class and place-based power relations severely constrain these women and their efforts to find better employment. Mobile phones can help their job movement, but only for some women who incorporate phones into pre-existing micro-enterprises, or women who

use phones to generate higher income for their employers, and some employers use mobiles for surveillance and to harass young female employees.

DETERMINISM 2: CONCEPTUAL DETERMINISM, DISCIPLINARY FRAMES AND THE QUESTIONS WE ASK

As noted above, Donner has pointed out that many uses of the mobile phone such as social messaging and voice calls have been understudied by development research. Therefore we only partially understand how mobiles take part in processes of development. We can see from the examples drawn upon above that mobiles help women to remain connected with family, source labour opportunities and improve their livelihoods but we can also start to see how it feels to be a seasonal salt worker or a sex worker, or a young women monitored by her mother, the competing demands and relationships, as well as the range of mobilities that matter to women. We can start to see that meaningful mobility from the women's perspectives varies across these examples. Extending from the examples above that complicate the relationship between technologies, contexts and change, there is a need to consider the frame.

While we might agree that mobiles and mobility mean different things and have different implications and raise different questions in different contexts, how do we then go on to research and understand the implications of this? The approach and disciplinary frame determines what questions are asked, what knowledge is useful and therefore highlights and prioritises particular differences over others. This points us towards certain interpretations and subject matter. The examples of research in the slum cluster can be contrasted with the research in Gujarat. Different questions were asked because the frame of the research in Gujarat was development; it was looking at women through a development initiative and asking what role mobiles played. The work in the slums was undertaken outside of a development agenda, to explore and understand the everyday lives and experiences of slum dwellers and how they relate to the world outside the slums, with communication and phones being just one aspect of what emerged as interesting (see Chandola, 2012 and 2013).

Research undertaken within a development frame is understandably focused on instrumentalist agendas—for example how are and how could mobiles be used to increase livelihoods. While it is clearly possible to compare and use the findings from both sets of studies above to develop arguments and concepts such as contextualized affordances and meaningful mobilities, here I want to point to the importance of nevertheless paying attention to the frame. In the context of literature about technologies and

communication for development, where it is not uncommon for technological advances to become conflated with modernization paradigms of development itself, we tend to know little about how people think and feel about their lives, their relationships, families, social conditions, labour, and relationships with technologies. The underlying models of development frame the perspective and the research questions (Tacchi, Kitner and Kiran, 2014).

Buskens (2010) points out how (rightly) concerned we are in ICT4D with increasing agency and choice for the women we work with, such as the women discussed in this chapter. However, she also gives an example from Africa of a woman's struggle to succeed, as a way of pointing out that the ways in which ICT4D (and I would add development more broadly) fails to understand the complex and layered environments that women live in, different situations and locations, and the gendered socialization, expectations and aspirations. Busken's tells us how Bahati left home as a young woman and moved to the city to stay with her aunt and try to earn a living. The first job she tried did not work out for her and she turned to hairdressing. She found a position and worked hard for two years, saving what she could from her small earnings. The only way for her to make more money was to set up her own business.

Once she had saved enough, she bought a mobile phone, and was then able to build a customer base for her own business. This example is both inspiring since Bahati showed enormous strength and determination, and instructive because she succeeded against the odds. Yet the lesson Busken's wants us to understand is not that we can therefore replicate such success, by sending mobile phones to all women in Africa so that they can set up their own business like Bahati. Busken rather invites us to think about how successful Bahati might have been without the two year's hairdressing experience, or how a married woman might compare given the very different expectations, and, whether a woman with children would be able to dedicate all her time and energy to work outside the home. She challenges us to think beyond 'fix it' notions of technologies and development. As researchers we do need to think about the agency of women in development contexts, but also think about our own agency and choices in how we think about and research development. This is because we, as development researchers and scholars, are among the people who define development discourses and practices and research processes, along with donors, and practitioners. We greatly 'influence the theoretical, methodological, and normative concepts employed in the ICT4D knowledge construction processes' (2010:20).

This is important because we can look across all of the examples discussed in this chapter and see that marginalized and poor women live in a range of different ways, within a range of different structures and systems that restrict and set gendered expectations for them. While these women's agency is

experienced and adapted to within the various and particular structural and systemic environments they live in, and the tensions and competing demands upon them, development sets a further set of expectations about what women might do and how they might achieve agency and the ability to make choices. Rather than hand out mobile phones so that other women might strive to succeed and demonstrate agency as Bahati did, what if we focused instead on the structures that restrict women and their mobility, or the infrastructures that mean it takes a poor working woman two year's to save for a mobile.

As researchers and scholars, Buskens considers that we too experience agency and choice *within* the structural powers in our environment. For us it is funding organisations, corporations and mainstream neoliberal development models that provide the frame of reference for our research, and our choices. The concept and practice of development 'is defined by the powerful and signifies the powerful' (Buskens, 2010:20) it is therefore essential to acknowledge the frames that we employ. ICT4D is a 'reflexive endeavor' because the ways we make sense of what we research 'impact the reality that we study because of the ways that power and knowledge construction interact and intersect' (Buskens, 2010:20). Our knowledge construction is not neutral. Buskens challenges us to recognise our theoretical, methodological and normative positions and acknowledge and take account of its impact on those we research. She considers this as a form of agency; 'It is in becoming aware of our perspectives, realizing them for the choices they are, and acknowledging the impact they might eventually have on the lives of the women to whom we aim to reach out that we, as researchers and scholars, can exercise our agency' (Ibid).

In international development, mobiles are understood to have effectively 'leapfrogged' older communication and information technologies that required costly infrastructures that are largely considered to be the responsibility of governments. Mobiles, on the other hand, are proliferating and reaching into previously technologically unconnected areas through mainly commercial initiative. Rather than a social good, with universal service agendas pressuring governments to act, commercial operators are tapping into new markets with affordable devices and connections.

This is not to suggest abandoning instrumentalist approaches in development, but equally to recognize what might be missed in such an approach. Asking different questions and considering different frames may enrich rather than distract from the goal of understanding the human condition and attempts to improve it. Other frames and models of development do exist, and Buskens mentions the Institute for New Economic Thinking, (<http://inetconomics.org>) and the Venus Project (<http://www.thevenusproject.com>) as examples. Human development approaches and Sen's capabilities approach remind us that within development we should be thinking not narrowly about

economic growth, but broadly about people in environments. They tell us to focus not just on markets but on a range of capabilities and freedoms to help people to be able to choose the kind of lives they have reason to value. This can be hard to measure and hard to research, and does not fit well within the mainstream development framework for research and evaluation (Lennie and Tacchi, 2013).

IN CONCLUSION

What the discussion above intends to highlight is that there are key domains of mobility related to mobile phones including social, political, economic, and geographic. It also aims to illustrate some of the key constraints on mobility including gender, class, caste, economics, social status and so on. The implications I argue are that we need to push ways of thinking about mobiles, mobilities and development beyond the economic, in ways that balance affordances and context, and that acknowledge, challenge and make explicit our frames, which requires a degree of reflexivity. This can help us to ask different questions and pay attention to underlying processes of change that might at first seem unimportant. Looking at mobiles in the context of a highly effective development organization (SEWA) highlights underlying processes of social change that have been a work in progress for more than 30 years. A focus on technologies like mobiles can draw our attention to underlying structures, and social change, can magnify them, but not wholly create them. In India, rather than focus on consumption and economic comparisons, how would it be to consider the constraints and restrictions faced by slum dwellers and other marginalized populations and the social, sensual and feelingful dimensions of how they think and feel, and the role of mobiles in this? In essence I am arguing for seeking out and recognizing local perspectives.

For Sen (2010:2) it is important not to overemphasise the contrast and opposition between local and global knowledge, it is ‘very fashionable these days to praise “local knowledge” and its great importance’. I am certainly not arguing that local knowledge is *more* important than external or ‘global’ knowledge, and agree with Sen that the way communication technologies are being absorbed across the world show how easily assimilated they are within local environments and knowledge systems. But there is, within development, a need to consider unequal power relationships between donors and development practitioners and their recipient communities, and the different conceptual frames through which we perceive what change is achievable and desirable, and what futures are worthy of aspiration.

The discussions above indicate the complexity and multiple interlinked structures, constraints, and opportunities that marginalized women in

particular face. Understanding the multiple meanings of technologies within such contexts is a vast undertaking. Focusing on ideas of contextualized affordances and meaningful mobilities, the changes that technologies help to facilitate in particular places and times, that are meaningful and valued locally, can perhaps provide a suitable focus when exploring mobile phones and development and understanding how to counter tendencies toward technological and conceptual determinism.

NOTES

1. Participatory approaches are also widely critiqued and challenged (see for example Cooke and Kothari, 2001).

2. The author has worked in this space with Dr Tripta Chandola since 2004. The research reported here includes Dr Chandola's ethnographic work with the author (funded by the Department for International Development—DFID—from 2003 to 2005), and further ethnographic work undertaken by Dr Chandola first for her doctorate, supervised by the author, and subsequently through post doctoral work.

3. This data is from three research projects. The first was 'Moving Content: Creative Engagement in Marginal Spaces' (2007—2010), funded by Intel and led by the author with Jerry Watkins, Kathi R Kitner, Jay Melican and Sue Faulkner, and research assistants Kiran MS, and Tripta Chandola. The other two short projects were 'Technologies of Attachments' and 'Smartphones and Social Participation', again funded by Intel and led by the author with Kathi R Kitner and Kate Crawford, Kiran MS, and Tripta Chandola.

4. Slum dwelling/house.

5. Scrubber or whore.

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