

MOBILE TECHNOLOGY, MEDIATION AND SOCIAL CHANGE IN RURAL INDIA

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While much of the world was becoming media saturated around the millennium (1999–2000), I spent a year in an Indian village in West Bengal doing fieldwork on women's political participation. It was a year without computers and phones, not to mention e-mail and the internet; occasionally, visitors from other villages conveyed the local news. When I left this village scene, which appeared quintessential, I had little idea that it was on the verge of changes. On my return in 2005, a mobile phone network covered the region. Although the phone density was initially low, the village had started to resemble an urban neighborhood crisscrossed by translocal networks. I became interested in the changes, and this is how I started to do research on the appropriation of mobile technology. The results of this long-term ethnographic research—several fieldwork visits over the years from 1999 to 2013—were recently published as a monograph (Tenhunen 2018).

In this paper, I use excerpts and ethnographic examples from the book to illustrate the key arguments of the book. This paper does not follow a journal article structure. Instead, I start by building my key arguments and then illustrate these with ethnographic examples. To conclude, I discuss the role of mobile technology for development. In this short paper, I am not able to do justice to the richness of the many scholarly discussion, and I encourage you to turn to my book for a more detailed discussion of the relevant scholarly debates.

The expansion of mobile telephony is often celebrated as a showcase example of how neoliberal globalization can promote development and reduce poverty. Mobile phone users in developing countries have been depicted as iconic figures signifying change and progress. The scholarly debates on the expansion of mobile telephony also initially revolved around technological determinism. For instance, Castells (1996; Castells et al. 2007) famously argued that mobile telephony could lead to the reinforcement of individualistic interest and projects. Rheingold (2000), in turn, proposed that mobile phones enable the creation of smart mobs—groups that, contrary to the usual connotations of a mob, behave intelligently or efficiently thanks to mobile telephony enabled networks. However, ethnographic studies of mobile telephony have vigorously challenged the technological determinism and optimism inherent in the M-development discourses (to mention few Horst and Miller 2006, Archambault 2011, 2017). My observations do not support technological determinism; yet, villagers told me that they had experienced their ability to use mobile phones as a major change. Moreover, I could witness many changes which were related to the appropriation of mobile telephony. Nevertheless, I also saw that the phones could not, for instance, reduce poverty in the region immediately or drastically.

My book demonstrates how mobile phone use contributes to social change by helping to diversify the cultural contexts of social interaction. The book develops a research strategy to understand new media's role by exploring how different forms of mediation interact as part of the local hierarchies when a powerful new medium is appropriated. The book unveils mobile phone use as a multi-dimensional process with diverse impacts by exploring how media-saturated forms of interaction relate to preexisting contexts.

Throughout the book, I discuss mobile phone use in relation to ongoing social changes in rural West Bengal. I thereby answer Postill's (2012) call to understand the role of media in social change by undertaking diachronic ethnography that examines the actual changes instead of describing the ethnographic present. In rural West Bengal phones were not adopted by a stagnant society, but by a changing rural society and culture influenced by broad processes, such as political reforms, the introduction of new agricultural methods, economic liberalization policies, and the women's movement.

By using a holistic ethnographic approach, I develop an understanding of how mobile telephony mediates social processes within interrelated social spheres and local hierarchies. I delve into the social and cultural changes in order to examine agency, power relationships, and development issues: Who benefits from mobile telephony and how? How are people as mobile media users constrained by the different axes of their identity and social position and can they refashion their identities through this use?

I argue that mobile phone use contributes to changes in social logistics, which impacts practices in culturally specific ways (see chapters 2 and 4). Economic liberalization and market operations have conditioned the ways mobile telephony has been designed and used to increase the logistical efficiency of the economy and social relationships. Small-scale entrepreneurs were the first group of people to make use of mobile phones in Janta. I was struck by the similarities between how they used mobile phones to improve their logistics and how phones were used elsewhere. As in many other locations, the villagers appreciated the way mobile phones enabled them to call for help, save time, extend their markets, and find market information. I view these similarities in phone use patterns as deriving from mobile telephony's material affordances. Mobile phones, as well as other ICTs, were largely developed with logistical concerns in mind. Wireless communication was initially designed to improve the logistical efficiency of the navy, the military, and police in the UK and US (Agar 2004). Overcoming spatial barriers with the help of ICTs has proved central for late capitalism, which has expanded due to constant efforts to shorten turnover times. Landline phones, faxes, and the internet have mainly helped improve economic efficiency in western countries and urban centers. The rapid spread of mobile telephony made it possible for many parts of the developing world to overcome their spatial barriers of time and money for the first time.

I discovered a great multiplicity of ways people can benefit from the logistical affordances of mobile media besides economic uses of the phones. I prefer the term social logistics, because it accentuates that logistics is inevitably socially mediated and not only confined to economic

life as separate from other domains of culture and society. Whether one arranges a business deal or maintains personal relationships, one has to operate within meaningful relationships in a social structure. In other words, logistical maneuvers have to draw on symbolic systems, and improved logistical efficiency is not limited to the economic sphere nor does it entail a shift from personal to impersonal systems. Instead of homogenizing cultures, mobile technology helps to reinforce those cultural patterns and processes that can be reconciled with improved efficiency in social interaction and business transactions.

My second main argument is that mobile phone use strengthens the heterogeneity of discourses by mediating the discourse and social interaction. I analyze how phones help connect speech contexts, give callers new possibilities to choose the context for their speech, and allow them to engage in critical and unconventional discourses and actions. I relate mobile communication to diverse social contexts and ongoing social changes, analyzing the relationship between mobile-phone-mediated conversations and other speech contexts and media. In exploring mobile phone use in different contexts, I draw from various paradigms that have emerged in technology studies, anthropology, and communication studies. I next discuss the approaches which underpin my study in order to clarify my conceptual choices.

From domestication to mediation

With the domestication paradigm, I share an interest in exploring how technology is adapted to everyday life and how it contributes to changes in everyday life through negotiation and social interaction. The domestication paradigm was developed to gain an understanding of how people appropriate technology by examining the way artifacts are used, but also the way they are adapted in use and subsequently interpreted (Mackay and Gillespie 1992).

Appropriation refers to negotiations that lead to the acquisition of technologies: the placing of technologies in a home (incorporation), incorporating their use as part of routines (objectification), and incorporating technologies as part of users' identities (conversion).

This paradigm takes into account how users position technology in their homes and make it useful and meaningful as part of a sequential process. It pertinently demonstrates that technology use needs to be studied in relation to the contexts of use. Nevertheless, I found the domestication concept of limited use for analyzing the multiplicity and fluidity of the mobile phone uses I encountered in the village. After all, portable devices, like smartphones, can be used in various contexts to extend social networks across diverse social spheres, whereas the domestication paradigm tends to highlight one medium within one context of use.

Moreover, the village experienced several different types of phone technologies within a short time. The change took place gradually as phone density increased and people experimented with various types of phone technologies—from shared kiosk phones to mobile phones, landline phones, and smartphones. Technologies were adopted and then discarded as new options became available, raising the question of how technologies, which the domestication theory suggests have become part of their owner's identity, can be so easily abandoned.

Bolter and Grusin (1998) developed the remediation concept to refer to a process in which each act of mediation depends on other acts of mediation, with media constantly commenting on, reproducing, and replacing one another. I share Bolter and Grusin's (1998) assumption that media emerge from cultural contexts and I explore how new media contributes to an increase in cultural contexts' heterogeneity. I explore the social creation of media contexts by analyzing how people take advantage of new media by creating novel communication contexts.

In Janta mobile phone use drew crucially from the pre-existing forms of communication (chapter 3). Before the onset of mobile telephony, news from other villages used to be mainly shared through visitors, because visiting also meant being informed of other people's news (*khobor neua*), and delivering it to the relevant people in other villages, often on request. Shared village phones remediated this practice. By 2012 the village had ceased to rely on village sociality and visiting for news; news sharing was now more about the exchange between family units over the phone—news was still shared, but in much smaller circles than before.

The very first telephones, namely shared phones, did not remediate prior communication technology; instead, the shared phones remediated the prior practice of delivering other people's news through visiting. My understanding of remediation draws from Gershon (2017) who argues that remediation is fundamentally about coordinating people's space and time bound experiences of media—it is about people relating media ideologies and practices associated with a recently introduced medium with those of the older media.

The flourishing of hand-held devices and internet-based social media has made the many contexts of media use worldwide obvious. New concepts have been developed to tackle this new multiplicity of mediated contexts in media-saturated environments. Madianou and Miller (2012) introduced the polymedia concept to address similar issues. They studied new media use between migrant Filipino mothers and their children who remain in the Philippines and developed the term polymedia to refer to new media as an emerging polymedia environment in which users employ new media as a communicative environment of affordances. Therefore, the choice of medium depends on social, emotional, and moral concerns. In other words, people choose certain means of communication not just because it is convenient or available, but because it also conveys a message. As Madianou and Miller argue, polymedia is relevant for environments in which the cost of a wide variety of media use is low once users have obtained the hardware and paid for the connection. Despite the worldwide triumph of mobile telephony, polymedia is not the prevailing condition in much of the developing world. This was also true of rural West Bengal during my fieldwork. Most people have to use their phones extremely sparingly due to the relatively high cost of communication.

Two terms—mediatization and mediation—have been used to address the general effects of media on social organization. The main focus of the mediatization paradigm is on change—it refers to the interrelation between the change in media communication and the change in culture and society (Hepp and Krotz 2014, 3). In comparison to communication scholarship,

which has focused on the contents or effects of a single medium, the mediatization notion offers a perspective to understand changing media as part of social and cultural processes. Many scholars (e.g. Hepp and Krotz 2014; Hjarvard 2008a) ascribe different meanings to the two concepts—mediatization is used to refer to the study of media-related long-term changes, whereas mediation is defined as the use of any medium to achieve communication.

Hjarvard's (2008, 2011) influential understanding of mediatization build crucially on the idea of media logic, a term originally coined by Altheide and Snow (1979), who defined media logic as the influence of major media's form and logic on people's lives. The concept of media logic has been mostly applied to examine mass media's role in social change in western countries. The worldwide proliferation of new media has, in turn, made evident the problems with the media logic idea. Even if each medium does have its own media logic this still raises the question whether the same media could exert the same logic regardless of their social and cultural contexts. Mediatization scholars have also been criticized for overemphasizing the role of the media as agents of change. Furthermore, Gershon (2010) and Madinau and Miller (2012) have demonstrated that instead of yielding to media logic, people make active choices to produce desired meanings in different contexts.

Critical debate (e.g. Couldry 2008 and 2012; Lundby 2009; Hepp 2013) on the notion of media logic and the institutional theory of mediatization has led to the emergence of a cultural perspective on mediatization which emphasizes flexibility. However empirical work rooted in the mediatization concept remains scarce. When empirical examples are used to demonstrate mediatization, the choice of concepts often reflects that it has mainly been discussed in terms of cases from Western countries. Despite the development towards greater flexibility to take the multiplicity of cultural and social contexts into account, mediatization scholars discuss social changes through Western-based concepts, such as individualization, secularization, and modernization.

Like much of the mediatization scholarship I have discussed, I explore how mobile phone use relates to social spheres, but instead of preconceived institutional notions, I use ethnographic data to examine the local meanings of social spheres and their ongoing changes. Instead of treating face-to-face and ICT-based forms of communication and co-presence as mutually exclusive, or even as competition, it is more fruitful to examine the way the two forms of communication interrelate with each other.

I build on the view endorsed by anthropologists (Mazzarella 2004; Boellstroft 2008; Horst and Miller 2012): Mediation need not only be assigned to media technologies, because it can be regarded as a general condition of social life. I view all interactions as mediated in the sense that their contexts always influence interaction and speech. As Horst and Miller (2012) argue, there is no pure human immediacy, but all interaction is as culturally inflected as digitally mediated communication. People commonly respond effortlessly to changes in contexts: They have fairly clear ideas of what can be expressed, how, and in whose presence.

The capacity for monitoring speech contexts is an essential part of social competence (Hymes 1974). Contexts, in turn, do not merely comprise physical surroundings, but what people do, when, and where (Cole et al. 1997, 22). As conversations, mobile phone calls represent speech contexts but they are also more than just dyadic exchanges between two individuals. To speak is to take up a position in a social field in which positions are defined relative to one another in constant flux (Hanks 1996, 201, 211).

In other words, even if the ability to communicate translocally over the phone creates conditions for specific open-endedness and ambiguity in comparison to face-to-face communication, two persons conversing over the phone, nevertheless, are not oblivious about the more far-reaching reception of their discourse by multiple publics. Hence, mobile phone-enabled speech contexts emerge as part of relational and affective dimensions of social life. The question is therefore not how unmediated culture becomes mediated through new media, but how different forms of mediations interact when a powerful new medium is appropriated. I analyze how phones help link speech contexts and give callers new possibilities to choose and create the context for their speech and to engage in critical and unconventional discourses and action. I will now turn to elaborate these arguments with ethnographic examples of mobile phone use in different contexts.

Mobile telephony in gendered contexts

When I moved to live with a family in the village in 1999, the situation of the young wife in this family puzzled me. Like most married women in the region, she had moved from her natal village to live with her in-laws in Janta after her marriage. She had not visited her parents since her marriage about a year before. The villagers explained that young wives are not supposed to visit their natal families for a year after their marriage. No one supported my interpretation of her treatment as unnecessarily strict, and I never heard her demand to be allowed to visit her natal home. But I could see that she missed her parents and was overwhelmed with happiness when her father visited her a few times during the year.

It used to be a well-accepted fact of village life that young wives do not visit and hardly communicate with their parents the year after their marriage, and even the young wives seemed to approve of this custom. Fast-forward 13 years, and I again witnessed a newlywed wife in the village. She had just arrived to live with her husband's family in the village and was now completely preoccupied with her personal mobile phone, with which she communicated daily with her parents. I was told that it is natural for young girls to want to stay in touch with their natal families. When I mentioned that things had changed, the older women—who had not been allowed to stay in touch with their natal families after their marriage—looked surprised, as if they had not noticed the change.

Some families in Janta even encourage their daughter-in-law to call her natal family regularly, whereas in other families a young wife does have to cope with the in-laws' often tacit reluctance to allow her to call, which shows that the increased communication is, nevertheless, perceived as a challenge to the family hierarchy. A young wife replied to my question whether her in-laws minded her using the phone:

—They do not mind because they need not know about my phone use. My husband gives me the money for calls. I usually call when my father-in-law or mother-in-law are not at home. If they are at home and I need to call, I go to the attic to make the call.

A Janta woman who, over the phone, advised her daughter to disobey her mother-in-law is an example of how communication with natal relatives can include subversive elements. The daughter of the woman, who gave advice over the phone, had married into a well-to-do household where the daughter was responsible for all the housework. The daughter was happily married in that she was well off, but her workload exhausted her. Usually, women share tasks more equally than in this household, although mothers-in-law tend to be in positions of power. The mother, over the phone, advised her daughter to simply refuse to do the excess work in her in-laws' house. She feared that if the daughter kept obeying, her workload would grow unbearable. Following her mother's advice, the daughter successfully refused extra chores.

Phones have helped introduce changes in women's relationships with each other: Phones help young wives challenge their mother-in-law's authority and build closer relationships with their mothers after marriage. While kinship relationships have encouraged and motivated mobile phone use, phone use has, in turn, transformed relationships by helping to create new contexts for speech and action.

Mobile phones give callers new possibilities to choose the context for their speech and to engage in critical and unconventional discourses, which can help women make concrete changes in their everyday lives. However, the positive impacts of women's phone use are subtle and ambiguous: Most calls are about the slight redefinition of the home boundaries which are hardly acknowledged and articulated.

Phones also mediate discourses by contributing to the merging of different contexts. They have helped change the meaning of the outside sphere for many women by extending the safety associated with the home to the outside world when they need to be there. The few village women who go to college or have a service job outside the village, therefore always carry their personal phones. They use phones to inform their home about their schedules, possible delays in commuting from work, and to monitor how things are at home—and request help in case of emergencies.

The importance attached to relationships with in-laws has helped women to gain access to phones. By calling their parents frequently, women have not adopted a completely new practice, but have instead strengthened the relationships between kin groups which were already valued as important. However, the greater communication density that phones enable as well as the fact that women themselves can now initiate the contacts instead of their brothers and husbands is new. Nevertheless, since most women have no source of personal income nor do they own personal phones, a woman's ability to call also reflects the position she has been able to carve in her in-laws' house, as well as the economic standing of the household. When women are able to call freely it signifies that they enjoy a good relationship with their husbands and/or in-laws and that the household is wealthy enough to allow calling. For instance, two married sisters developed different calling patterns after their marriages due to their divergent positions in their marital families. One calls her parents freely, while the other one hardly ever calls. The parents explained the difference due to the daughter who calls freely having received a bigger dowry at the time of her marriage than the other sister. Moreover, the daughter who can call freely gave birth to a son, while the other sister gave birth to a daughter. The above example highlights how it is not only wealth but one's position within the household influenced by several factors which greatly determines a woman's access to mobile phone. Consequently, a woman's mobile phone use does not only reflect women's agency but also her somewhat privileged position at least among the low-income strata which forms the majority in the village. (see chapter 5)

Mobile media in politics

In chapter six of the book I reveal mobile telephony as a crucial factor in the rise of the opposition in West Bengal. In 2010, opposition activists told me how mobile phones helped them mobilize secretly against the ruling party—party activists were among the heaviest phone users in rural West Bengal. Although phones helped both the opposition and the ruling party act more efficiently, opposition activists used phones for spontaneous activities, such as organizing wildcat strikes and reporting the ruling party's misdeeds, more than the ruling party did. Opposition activists emphasized that phones help them react faster to events. News about local political disputes can be communicated upward in the party hierarchy, and party leaders can, in turn, coordinate political action and can request that news about such actions should be spread horizontally through the party hierarchy's lower levels.

When the communist party, CPI(M), sought to overpower the opposition through violence, Trinamul organized protection by phone, sending its cadres to protect its supporters even if

an attack was just anticipated. Nevertheless, political activists use phones more to organize party meetings and offer political patronage than to organize spontaneous demonstrations and support. The parties' power is largely derived from their role as arbitrators of disputes: Any person who feels that he or she has suffered an injustice can call a village meeting, led by the local political leaders, during which a solution will be negotiated between the disputing parties. Political activists and leaders receive calls from people with different types of trouble, and phones have made it possible to react faster and to accomplish more in a shorter time-span than previously. In addition to local leaders, patronage is now increasingly sought from other sources.

The rise of the opposition in Janta and elsewhere in West Bengal exemplifies how the use of mobile technology can amplify multiplicity by strengthening clandestine political activities and alternative discourses. In contrast to the CPI(M) party's hierarchical flows of information and decision making, Trinamul Congress party used phones to change the way political hierarchies were imagined and practiced by encouraging translocal communication across its hierarchical units.

Phone use for political purposes built on earlier political patterns and meanings, but it made politics faster, more heterogeneous, and translocal. Not only can activists connect more promptly with their supporters and voters, but they can also communicate more efficiently with different organizations, both horizontally (e.g., other activists, and organizations such as the police and communal elected bodies) and vertically (with their leaders and subordinates). Incidents that appear to be spontaneous reactions to the ruling party's misdeeds often originate from communication between different levels of party hierarchies followed by the horizontal spreading of information both within and outside the party.

To summarize, the strengthening of civil society due to the use of mobile phones in rural West Bengal was about the proliferation of translocal relationships and the ability to create new contexts of political discourse and action. Local people benefitted by no longer having to predominantly rely on local leaders and by phones offering an additional media for the articulation of critical and alternative discourses. While the shift in power from local communities and leaders to translocal networks may nurture democratization, as illustrated by the growth of the opposition in rural West Bengal, it has also meant a decrease in the influence and power of village-level leadership.

These findings on the political uses of phones should not be generalized to other contexts and locations. Research on the political uses of new media has resulted in mixed conclusions, which reflects the degree to which the use of new media for political activities is embedded in local social structures and power hierarchies. There are well-known examples of how mobile phones have enabled political action, but the promotion of technological tools as pro-democratic agents has also incited authoritarian regimes to control activists. In West Bengal, media played a more prominent role than those in many autocratically ruled regions, because the Left Front state government could not control the media, which the central government regulates in India. Despite the many affordances mobile telephony offers for political

activism, mobile phone use for political purposes is embedded in local contexts and social processes in ways which elude generalizations about mobile phones simply as tools for democratization and strengthening of civil society.

Smartphones: recreational contexts within local hierarchies

When I arrived in the Tili neighborhood in 2012, one of the first things I was told was that the lowest caste group, the Bagdis, had acquired fancy phones. The news surprised me since Bagdis had been among the last people in the village to acquire phones. The fancy phones turned out to be Chinese-made phones with smartphone facilities: a music player, camera, the internet, video camera and player, radio, double-sim facility, and a memory chip. These multiple-facility Chinese phones were offered at much lower prices—the cheapest cost around 10 euro—than even the simplest branded phones. Samsung and Nokia were now the only companies which offered one phone model meant only for receiving and making calls—all the other phone models in the market included extra applications and gadgets. Later, I discovered that most of the villagers were now acquiring smartphones, although many of them were not even aware that their phones could be used to browse the internet or listen to the radio. As phones only meant for making and receiving calls had become scarce in the market, users were simply compelled to buy multi-function phones once their old phones stopped working. However, the Bagdis' had made their decisions to buy phones with many functions consciously as a smartphone was often the first electronic gadget they had purchased. The Bagdi neighborhood was the last one in the village to receive electricity; therefore, unlike the upper castes and classes in the village, they had not previously owned televisions. Consequently, smartphones had allowed the Bagdi neighborhood to leapfrog a whole range of gadgets—cameras, music players, and televisions—which most of the world has acquired one after another as separate gadgets over many decades.

When I told my upper caste friends in the town of Vishnupur about the popularity of smartphones among the Bagdis, they commented that common people's use of phones as entertainment centers entails the misuse of phones, which should be used for making calls. The low castes and classes' use of mobile phones for entertainment stirred controversy because their new ability to possess such advanced technological gadgets was experienced as disruptive of local hierarchies—Bagdi caste person owning a smartphone challenges the upper caste views of lower castes as backward. Elites' critique of lower class consumption served to highlight the factors which still are seen as separating the lower classes from upper classes: the ability to use the new gadgets in correct ways thanks to one's moral and intellectual superiority. The lower classes' ability to reach new levels of consumption is accompanied by the new emphasis by the elites on the idea that upper classes are distinct from lower classes due to their moral superiority.

Since accessing the internet's textual content requires an even higher level of literacy than operating a phone to make a call, only a few people in the village use their personal smartphones to browse the internet for various purposes: Facebook, downloading music and

movies, finding out about prices, products, jobs, and exam results, as well as sending e-mail and accessing study sources, such as literature and dictionaries.

Smartphones have helped people connect to the internet, but cheap smartphones do not offer the same affordances as computers and broadband connections. It is hard to both author content and read from a small screen—cheap smartphones are not user-friendly. Moreover, people's access to the internet via smartphones remains limited and sporadic due to the high cost of browsing. Owing to these obstacles, most phone owners use the internet indirectly. They buy music, videos, and pictures, which are downloaded on their phone's memory chip in shops selling chips and content downloaded from the internet.

In rural Bankura, it is a common sight to see men cycling while listening to loud music from their mobile phone's speaker. Unlike in Western countries, in rural Bankura people do not use headphones when listening to music from their phones; instead, they allow others to listen to their personal choice of music. I never saw women listening to music on their phone in public places like men do; consequently, listening to music on phones through the phone's loudspeaker is used to ascertain the meaning of the public sphere as a masculine space where men can spend their leisure time.

A few young men in the village access Facebook through their mobile phones. Whereas the calling function of mobile phones was regarded as useful for obtaining news, a young man emphasized that Facebook is not for news, it is for pictures. This comment illustrates that people are not interested in using Facebook to provide their contacts with news indiscriminately; instead, they use the call function to deliver news—calling gives them better control of whom to tell what. As in a South Indian city that Venkatraman studied (Miller et al. 2016), Facebook is used in Janta to build cosmopolitan identities. Facebook users are indeed effectively building a circle of friends outside the realm of kinship and village sociality, while Facebook is especially used to construct a community which shares leisure activities. Whereas many of my Facebook friends from Europe and Northern America regularly report on their family life through Facebook, villagers mainly post pictures showing themselves at outings, at places they find scenic and exotic such as shopping malls. They use English phrases such as “good night” (which no one ever wishes to each other in the village) and posting romantic pictures with English texts to create a cosmopolitan image.

Phone use is part of the construction of intersecting hierarchies in how the ability to use digital technologies indicates upward mobility even if this newfound ability is contested by the upper classes and elites. Low-class ability to obtain smartphones can destabilize local hierarchies but consumption of hi-tech items—albeit being a crucial part of identity work—appears only as one vector of hierarchical identities reflected by how the elites blame the low-class people for using smartphones in incorrect ways. Smartphones offer different affordances for people in different social positions so that the internet opens up diverse textual information on useful topics for the well-educated. Moreover, smartphones enable the creation of new social contexts. Facebook enables the user to expand their social bonds beyond the home, village and the kinship sphere. However, most people use smartphones to

create new affective social domains by playing music and cinema through phone speakers. (see chapter 7)

Conclusions: mobile telephony, social change and development

Mobile telephony has become such a ubiquitous part of everyday life that the villagers would find it hard to manage without their mobile phones. Simply the fact that people can use mobile phones to strengthen social networks gives people new possibilities to survive a crisis, although phones do not guarantee that help will be offered. The small reductions in time and money needed to run errands that phones enable do add up. In fact, phone users are likely to underestimate phones' logistical benefits, because they are hard to calculate and measure. In Janta, most people could accomplish more in a shorter time by being able to coordinate their activities with the help of mobile phones. However, the biggest economic change in the village, since the turn of the century, was not due to the use of mobile phones, but to the agricultural policies which have led to small farmers' profits decreasing.

People have been able to introduce incremental changes in gender and kinship system and caste identities thanks to their ability to use mobile phones. While most people could avail the logistical affordance of their phones in various ways, the economic benefits were not distributed equally. I also saw untapped potential to improve people's capacities with the help of mobile telephony. For instance, although people use mobile phones to call for help privately, it is still not possible to call medical help to the village or to obtain medical advice from an expert over the phone. The Indian state has not used the possibilities to provide its services cost-efficiently with the help of mobile phones.

Many pilot projects have provided developmental services in India and elsewhere. Nevertheless, it has proved hard to scale up these projects—most poor people are not willing to pay for educational messages once the pilot project is over. Service provider companies have not been able to provide sustainable, affordable health care solutions or useful information for low-income people as part of their business practices, while the state has not introduced initiatives to harness mobile technology's potential.

The identification of mobile telephony as belonging to the market realm hampers its use for developmental purposes in India. Again, my findings should not be generalized—new institutional setups for mHealth are being developed in different locations: for instance, governments of Bangladesh and Indonesia are actively promoting both eHealth and mHealth as a route to cost-effective healthcare. (Chib and Hsueh-Hua Chen 2011, Ahmed et al. 2014)

An overarching interest in a few success cases and successful pilot projects at the expense of sustainable development has dominated M4D discourses to date. Despite their many benefits for users, mobile phones alone do not solve developmental problems: The complexity of social processes and actors requires multiple solutions. Detailed attention to ICTs' multiple uses and influences can, in turn, help create policies that take the multiplicity of actors and on-going social processes into account.

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