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## Digital inequality and relatedness in India after access

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### Abstract

The scholarship on digital inequality and divides has relied mainly on quantitative data and such general criteria for digital inequality as access, motivation, skills, and the autonomy of use to measure the empowering effects of internet access. This chapter develops a novel way to understand digital inequality based on ethnographic fieldwork on smartphone use in rural and urban India among low-income and little-educated people. It analyses digital inequality through the concept of digital relatedness exploring how people's digital media use is embedded in social relationships and how media use serves to refashion relationships and hierarchies. The chapter argues that the focus on autonomous uses can leave unacknowledged a great variety of digital practices, which users can find valuable and even transformative. It also demonstrates how even seemingly autonomous media use is embedded in social relationships in the sense that people usually learn their uses from others.

1 The digital divide concept emerged in the 1990s to refer to the unequal access and  
2 usage of digital technologies. The idea is well summarized by Castells (2002: 269),  
3 who argued that being disconnected from the internet is tantamount to marginalization  
4 in the global, networked system. In this chapter, I will first discuss how the  
5 approaches to digital divides and inequality have evolved as access to digital media  
6 has increased. Drawing from my ethnographic fieldwork<sup>i</sup> on smartphone use in rural  
7 and urban India among low-income and little-educated people, I then propose a novel  
8 way to understand digital inequality through the concept of digital relatedness. I  
9 demonstrate that understanding digital inequality requires exploring how people's  
10 digital media use is embedded in social relationships and how media use serves to  
11 refashion relationships and hierarchies. To conclude, I discuss the implications of the  
12 relational understanding of new media use for digital inclusion.

13       Whereas the lion's share of the research on the appropriation of new media  
14 has tended to focus on the early adopters, the notion of the digital divide directed  
15 attention to the people excluded from digitalization. Hence, the notion helped build a  
16 critical stance towards the ideas about digital media as bringing about development  
17 and prosperity for all (Gunkel, 2003). Early debates on digital divides tended to  
18 assume that information and communication technologies (ICTs) are inherently good  
19 and progressive, that the non-use is solely caused by a lack of access, and that  
20 providing ICT resources for socially disempowered groups is a means to empower  
21 them (Green and Haddon, 2009). The critiques of the concept, which first emerged at

1 the beginning of the 21st century, found the notion technologically deterministic and  
2 crude in emphasizing access to media and dividing people into information have and  
3 have-nots ([Carpentier, 2003](#); [Gunkel, 2003](#); [van Dijk, 2006](#)). Yet, much of the  
4 academic, policy, and popular discourse around ICTs has continued to centre on this  
5 notion, while policies worldwide seek to bridge the divide or enable a digital leap.

## 6 Inequalities after access

7 Identifying the conceptual flaws of the digital divide notion has not been accompanied  
8 by the disappearance of digital inequality. Stark differences in people's abilities to  
9 access digital data persist not only between countries but also within countries. The  
10 global access rate to the internet has increased from nearly 17 per cent in 2005 to over  
11 53 per cent in 2019; yet, only 19 per cent of individuals in the least developed  
12 countries had access to the internet in 2019, while 97 per cent of the population was  
13 able to go online in developed countries ([International Telecommunication Union,](#)  
14 [2019](#)). Even high-quality and low-price access to the internet does not necessarily  
15 translate into an equal capacity to use it. In Europe, half of the less-educated and the  
16 elderly do not use the internet regularly, and about 58 million EU citizens (aged 16–  
17 74 years old) have never used it at all ([Negreiro, 2015](#)). The digitalization of  
18 governmental and private sector services worldwide has helped those tech-savvy  
19 enough to access these services, but it has increased digital inequality for others. The  
20 Covid-19 pandemic has exacerbated the situation further as an increasing number of

1 activities, which used to take place face-to-face, have been transferred to the digital  
2 sphere ([Lai and Widmar, 2020](#)). Children without access to distant learning have  
3 borne the brunt of digital inequality—two-thirds of the world’s school-age children  
4 have no internet access at home (United Nations Children’s [Fund and International](#)  
5 [Telecommunication Union, 2020](#)).

6         Mobile broadband subscriptions exceeded the number of fixed connections in  
7 2008, and much of this growth now occurs in developing countries (World Bank,  
8 2012: 11–30). While the coverage gap— those living outside of areas covered by  
9 mobile broadband networks—has narrowed to 7 per cent of the world population, the  
10 usage gap—the difference between total potential use and actual usage—has grown  
11 faster than usage ([Bahia and Delaporte, 2020](#)). Like much of the developing world,  
12 India witnessed unprecedented growth in teledensity from less than one per 100  
13 persons to 93.27 during 1991–2018 (Telecom Statistics of [India, 2019](#)). Mobile  
14 internet use increased in India particularly after the service provider company Jio  
15 launched an affordable smartphone along with a free internet trial offer in 2016. Other  
16 service providers responded by introducing rate cuts; as a result, India’s data usage  
17 quadrupled in one year. By 2018, when I returned to India for fieldwork, India was  
18 one of the largest and fastest-growing markets for digital consumers, with 560 million  
19 internet subscribers, second only to China ([BBC, 2019](#)). Yet, the usage gap of mobile  
20 internet in South Asia was highest among the continents—61 per cent of the  
21 population who live in regions covered by mobile internet did not use it in 2020

1 (International Telecommunication Union, 2020). Affordability has remained a pivotal  
2 barrier to connectivity, especially in lower-income countries and among low-income  
3 people in countries worldwide; consequently, around half of the world population was  
4 offline in 2020 (International Telecommunication Union, 2020).

5         Those connected to the internet through smartphones do not get the same  
6 affordances as those using a broadband connection through a computer, as Donner's  
7 (2015) research in South Africa and India demonstrates. In addition to reading on a  
8 small screen, it is hard to use smartphones to author internet content, which is one of  
9 the vital internet affordances compared to printed text. Furthermore, the same  
10 properties responsible for mobile telephony's rapid growth in developing countries,  
11 such as usage-based pricing, present significant constraints to effective internet use.  
12 When every click on the internet costs money, users are likely to conserve airtime and  
13 their data bundle balance carefully—families have to decide how to allocate and  
14 balance bytes to different uses such as Facebook versus work. Hence, instead of  
15 unlimited surfing and browsing the internet, the hundreds of millions of new internet  
16 users are, in Donner's (2015: 124–125) words, likely to use it briefly and  
17 occasionally. They “dip and sip,” conserving airtime and the balance on their data  
18 bundles (2015: 135).

19         Similar to Donner, media anthropologists (for instance, Archambault, 2017;  
20 Burrell, 2012; Costa, 2016; Hobbis, 2020; Horst and Miller, 2006; Tenhunen, 2018;  
21 Ventkatraman, 2017) have challenged universalizing claims about the impact of

1 digital technologies. They have revealed the diversity in people's new media use and  
2 demonstrated that many users have to use new media sparingly due to the high cost of  
3 connections. However, although media anthropologists have provided rich data on  
4 digital inequality as well as insights into the new media use as a social practice, they  
5 have seldom explicitly addressed the debate on digital divides and inequality.  
6 Drawing from media anthropology, I aim to develop a nuanced understanding of  
7 digital inequality by exploring technologies and social relatedness based on my  
8 ethnographic fieldwork in rural and urban India. I have carried out fieldwork in Janta,  
9 a multi-caste village in the eastern state of West Bengal with 2,441 inhabitants  
10 (Census of [India, 2011](#)) since 1999. In 2012–2013, I observed how people moved  
11 from simple handsets to smartphones ([Tenhunen, 2018](#)). In 2018, I carried out  
12 fieldwork among environmental refugees in Kolkata, a mega-city in Eastern India. I  
13 also visited a few of these Kolkata residents' villages in the coastal region of  
14 Sundarban, which they had left due to the extreme weather events.

## 15 Understanding gradations of use

16 As digital technology has become increasingly ubiquitous, the discussion on the  
17 divides has moved from access to contextualizing the usage of technology ([Tsatsou,](#)  
18 [2011](#): 319). For access to matter, people must find the use of ICTs socially and  
19 culturally meaningful; they must fulfil people's needs, desires, skills, and capacities to  
20 make a difference in how and whether they access technologies ([Loader, 1998](#);

1 Mansell and Steinmueller, 2000: 37). In addition to access to technological means,  
2 divides can exist in terms of the autonomy of use, use patterns, social support  
3 networks, and skills (DiMaggio and Hargittai, 2001). The “digital divide” is now  
4 commonly understood as consisting of three levels: the first one refers to the  
5 inequality in access, the second one to skills and use,<sup>ii</sup> and the third one<sup>iii</sup> to the  
6 unequal outcomes and benefits of digital media use (Van Dijk, 2020). Since even  
7 when the divides are understood as multiple, the term reinforces splitting people into  
8 haves and have-nots, the notion of the digital divide is more usefully described as  
9 digital inequality to reflect the gradations of use. The scholarly interest, in turn, has  
10 shifted from divides to approaches that consider the relationship between social and  
11 digital inequality (Helsper, 2012 and 2021).

12         The concept of intersectionality has offered a fruitful way to address the social  
13 complexity of the appropriation of new media. The term coined by legal scholar  
14 Kimberlé Crenshaw (1989: 139) refers to how mutually reinforcing vectors of race,  
15 gender, class, and sexuality constitute subjectivity. Crenshaw availed the concept to  
16 make the law more sensitive to different registers of identity—she developed her  
17 insights by drawing from legal cases involving African American women’s arguments  
18 that they were facing compound discrimination. The concept has since been used in  
19 many contexts across disciplines to highlight how focusing on one aspect of identity,  
20 such as gender or class as apart, does not do justice to social complexity. Wallis  
21 (2015) applied the concept to media studies exploring how multiple axes of identity

1 and modes of power among migrant women in China relate to mobile phone use. She  
2 argued that social constructions of gender, class, age, and place produce particular  
3 engagements with mobile technologies, which reproduce and restructure these  
4 identities. By demonstrating that migrants' social identity as migrants and not as  
5 Beijing people remained intact, despite the virtual mobility and inclusion in expanded  
6 and enriched social networks that phones offered, Wallis emphasized social barriers  
7 of media use. Yet, smartphone-mediated encounters can facilitate users' agency. For  
8 instance, McCaffrey and Taha (2019) challenged assumptions of refugee  
9 incompetence by demonstrating how Syrian migrants in the US harnessed such  
10 smartphone interfaces as Google Translate and YouTube videos to negotiate linguistic  
11 and cultural differences and lower the interpersonal language barriers.

12 In this chapter, I introduce the term digital relatedness to pay attention not  
13 only to the barriers of media use but also how the use of digital media is embedded in  
14 human and non-human relationships and networks, which are inherently open and  
15 emergent. Relatedness is a term coined by Carsten (2000) to refer to the processual  
16 nature of kinship relationships produced through social interaction and the exchange  
17 of substances. Kinship studies have focused mainly on how substances as bodily  
18 fluids are understood to constitute kinship relationships. Carsten's ethnographic  
19 research in Malaysia and Scotland broadened the understanding of substances from  
20 bodily fluids to small acts of everyday life, which could create kinship where it did  
21 not previously exist. By digital relatedness, I refer to how media use is not only

1 embedded in pre-existing social relationships as revealed by the intersectionality  
2 approach but how it can serve to refashion the meanings of social relationships and  
3 hierarchies. Consequently, the term relatedness helps to highlight the potential  
4 emergence of new relationships, identities as well as concomitant novel media  
5 ideologies. I will start by describing how my interlocutors used their smartphones,  
6 including the barriers they faced in using the phones. I then demonstrate how people  
7 were able to develop novel digital practices. Next, I explore how people refashioned  
8 their relationships and local hierarchies through their smartphone use. I provide  
9 ethnographic vignettes from my fieldwork during 2012–2013 and 2018, in order to  
10 analyse how the new availability of inexpensive branded phones contributed to digital  
11 practices and inequality.

## 12 The diversity of digital practices after access

13 When I arrived in the village of Janta in 2012, one of the first things I was told was  
14 that the lowest caste group,<sup>iv</sup> the Bagdis, had acquired fancy phones. The news  
15 surprised me since Bagdis had been among the last people in the village to purchase  
16 phones. The fancy phones turned out to be Chinese-made phones with smartphone  
17 facilities: a music player, camera, the internet, video camera and player, radio,  
18 double-sim facility, and a memory chip. These multiple-facility Chinese phones were  
19 offered at much lower prices—the cheapest cost Rs 700 (around 10 euros)—than even  
20 the simplest branded phones. Nevertheless, mere smartphone ownership did not mean

1 that people accessed the internet or were even interested in doing so. Most phone  
2 owners used even the calling function of their phones sparingly. Wealthier people  
3 could make and receive tens of calls a day, whereas low-income families only receive  
4 and make a few brief calls weekly. The importance of education for phone use was  
5 highlighted when I observed a 12-year-old Bagdi girl effortlessly learning to browse  
6 English language information from the internet using a smartphone. At the same time,  
7 the older, less-educated generation in the same family needed help to type in a  
8 number. Yet, an inability to read English numbers and text does not exclude anyone  
9 from calling because phones are shared, and younger family members could help their  
10 elders use the phone's calling function. I witnessed both young men and women  
11 acting as phone use experts in their families.

12         The few people in the village who had used their phones to browse the internet  
13 all had a college education and therefore belonged to a minority. In 2013, I found 33  
14 villagers (1.3 per cent of the village population) who either had a college degree or  
15 were studying at a college. The few, who had tried the internet had found many uses  
16 for it: downloading music and movies, finding out about prices, products, jobs, and  
17 exam results, as well as sending e-mail and accessing study sources such as literature  
18 and dictionaries, and using Facebook. In 2013, browsing the internet directly on a  
19 mobile phone cost Rs 98 per month for a limited amount of gigabytes, which low-  
20 income people found too expensive. Service providers had also introduced  
21 inexpensive data plans (starting from Rs 12), allowing the internet to be browsed for a

1 limited period and amount of data, which could mean just one night. Consequently,  
2 people tended to access the internet by means of their phones only sporadically.  
3 Moreover, browsing the internet on an inexpensive, low-end handset was not easy—  
4 these phones were not user-friendly. I, for instance, failed to teach a young woman  
5 who had studied up to class 10 (first year of high school) to access the internet and  
6 use e-mail on her mobile phone. I, too, found it difficult to operate the low-end phone  
7 model to access the internet. But it must have been more challenging for someone  
8 who had never browsed the internet with the help of a computer even to grasp the idea  
9 of the internet when accessed on a small phone screen.

10 Most people who possessed cheap smartphones, however, had accessed the  
11 internet but not directly with their phones. Instead, they bought music, videos, and  
12 pictures, which are downloaded on their phone's memory chips at a village shop.  
13 Although this practice differs crucially from the more autonomous use of smartphones  
14 to browse the internet, it offers easy and inexpensive access to internet content. The  
15 amount of downloaded material depended on the size of the memory chip, but the  
16 usually downloaded package contained hundreds of songs, dozens of pictures, and a  
17 few films. Each download cost Rs 10–30, and the cost of memory chips was around  
18 Rs 150–350. Villagers found these costs more affordable than buying a monthly or  
19 daily internet package.

20 In 2018, my interlocutors in a squatter settlement in Kolkata used their  
21 smartphones much the same way as the villagers I encountered in 2012–2013 despite

1 the new availability of inexpensive branded phones and data plans. Some people had  
2 continued to use old simple handsets because they were not comfortable using the  
3 touchscreen phones, while others had bought branded smartphones. For most people,  
4 the phone's calling function continued to be more valuable than internet-based  
5 applications. The families were dispersed into several units in different locations, and  
6 phones helped them stay in touch. Moreover, phones' calling functions were crucial  
7 for their livelihoods. Most men's work was tied to construction projects—they were  
8 hired to carry out a specific part of the project, and once it was over, phones helped  
9 them to find a new job. Other urban opportunities for men included small-scale  
10 business or working as a ricksha or car driver for which phones' calling functions  
11 were also necessary. Women, who mainly found employment as domestic workers,  
12 said that without owning a phone one could not get a job, as employers want to stay in  
13 constant touch with their employees by calling them.

14 I met persons who possessed Jio phones and were aware of the three-month  
15 free internet offer; yet, they had not availed themselves of the offer. Like villagers in  
16 2013, most people indirectly accessed the internet by purchasing music and films on  
17 their phone's memory chip from the nearby shops. The difference was that the urban  
18 shops charged more and offered their customers more possibilities to select the  
19 content<sup>v</sup> than the village shops in 2013. The two college-educated residents of the  
20 Kolkata neighbourhood possessed a good understanding of the various ways one can  
21 use the internet—both had learned how to use a smartphone's internet applications

1 from their teachers and peers at the college. However, only one of these persons  
2 owned a smartphone and could practice what he had learned. He had used the  
3 smartphone for his studies by accessing information about exams. He also mentioned  
4 using WhatsApp, Facebook, and Google maps. He was the only person I met in this  
5 community who had used internet banking applications. The Indian state's Digital  
6 India campaign, which has among other things sought to develop digital financial  
7 services in 2017 (Ministry of Electronics & Information Technology, Government of  
8 India, 2019) had not reached this community. They preferred to send money to their  
9 families through a trusted person who could travel and deliver the cash in person.  
10 Some people mentioned having used other people's bank accounts to send money.

11         The rest of the internet users I met in this urban neighbourhood were either  
12 young or middle-aged people whose sons or daughters could help them use the  
13 smartphone. The smartphone users with little education could access the internet, but  
14 their range of use was much narrower than that of the above-mentioned college-  
15 educated man. Popular ways to use the internet over smartphones included watching  
16 films on YouTube and series on television channels, which were provided on their  
17 phones. Most people used the phone for recreation, but some people also mentioned  
18 watching educational videos on YouTube. For instance, a young woman had learned  
19 cooking and hairstyling from YouTube videos. Some people also made video calls or  
20 exchanged videos of their daily lives. Children played games and watched cartoons on  
21 smartphones.

1           The branded phones and cheaper data connections had made using the internet  
2 easier: consequently, the range of use had diversified. Nevertheless, accessing the  
3 internet still required social learning. My findings are similar to many ethnographic  
4 studies, which have revealed how people who lack skills and abilities are often helped  
5 to use digital media. Bakardjieva (2005), who studied computer use at homes in the  
6 United States, coined the term “warm expert” to refer to nonprofessional persons who  
7 help inexperienced users come to terms with digital devices. The crucial role that  
8 warm experts play in the appropriation of new media means that inclusion in the  
9 digital world takes place through social interaction. For instance, Oreglia (2014)  
10 discovered how older women in rural China had learned the basics of mobile phone  
11 and computer use. These women pursued their goals of maintaining relationships and  
12 accessing online entertainment after receiving training from their children, through  
13 collaboration and knowledge sharing with their peers, and through frequent reliance  
14 on other people to perform specific actions. In contrast, exclusion from digital  
15 services can result from the scarcity of social contacts or networks lacking people  
16 with digital skills. However, the social appropriation of new media is not only about  
17 passing technological know-how on how to use the device. People also have to learn  
18 to use different media in socially appropriate ways. Gershon (2010) argues that people  
19 devise the proper ways to use a specific medium together—she calls the process an  
20 idiom of practice. Gershon maintains that the medium shapes the message because  
21 people have media ideologies that shape how they think about and use different

1 media, while media ideologies about one medium are always affected by the media  
2 ideologies people have about other media. The notions of media ideology and warm  
3 expert help us to understand how digital media use tends to be firmly embedded in  
4 pre-existing social relationships. As such, even when people use digital technologies  
5 seemingly autonomously, the use remains predominantly social in that people need to  
6 learn to use smartphones and applications from other users. Hence, in addition to  
7 missing access, differential use of digital media emerges from patterns of social  
8 interaction.

## 9 Refashioning of social hierarchies

10 The social relationships in which the media use is embedded are not static but  
11 emergent, and media use can contribute to the changes in social hierarchies. Next, I  
12 turn to explore how my interlocutors refashioned and reconstructed hierarchies  
13 through their smartphone use—in both research locations, smartphones played a role  
14 in how people navigated within social hierarchies, even refashioning them. The low  
15 caste, Bagdi neighbourhood was the last one in the village to receive electricity;  
16 therefore, unlike the upper castes and classes in the village, they had not previously  
17 owned televisions. Consequently, smartphones had allowed the Bagdi neighbourhood  
18 to leapfrog a whole range of gadgets—cameras, music players, and televisions—  
19 which most of the world has acquired one after another as separate technologies over  
20 many decades. Although the Bagdis did not buy branded phones, their smartphones

1 were identity statements, signifying their position's relative improvement in relation  
2 to the upper land-owning castes in the village. Smartphones represented the Bagdis'  
3 new inclusion in services and consumer products from which they had previously  
4 been excluded. This exclusion, in turn, had contributed to their social standing in neo-  
5 liberal India, where media images have delineated the urban middle classes as the  
6 consumers of not just the newly available commodities but also of the new India  
7 produced through the meanings of these commodities (Fernandes, 2000). The  
8 widespread ideology, according to which not being connected is a sign of exclusion  
9 from global currents and development, has also contributed to how owning digital  
10 technology has become a significant symbolic act through which people can seek to  
11 improve their position and challenge hierarchies. Throughout India and South Asia, it  
12 has become common for elites to demonstrate social and economic changes through  
13 anecdotes of how someone's driver, cook, or maid has suddenly acquired a mobile  
14 phone (Nisbett, 2007). Nisbett (ibid.), who repeatedly heard the story from the IT  
15 elites in Bangalore, notes that the comment entails a dual discourse—the pride that  
16 these working-class people could have acquired something so symbolic of hi-tech  
17 India, mixed with the uneasiness about how the lower classes have suddenly managed  
18 to catch up in a hi-tech sphere considered the preserve of the elite. When I told my  
19 upper-caste friends in the nearby town of Vishnupur about the popularity of  
20 smartphones among the Bagdis, they commented that common people's use of phones  
21 as entertainment centres entails the misuse of phones, which should be used for

1 making calls. The low castes' and classes' use of mobile phones for entertainment  
2 stirred controversy because their new ability to possess such advanced technological  
3 gadgets was experienced as disruptive of local hierarchies—a Bagdi caste person  
4 owning a smartphone challenged the upper caste views of lower castes as backward.  
5 By labelling low caste people's smartphone use as misuse, the upper-class people  
6 sought to downplay the potential rise in the hierarchy that the possession of  
7 smartphones could signify.

8         The Kolkata community, where I did fieldwork in 2018, was an informal  
9 squatter settlement characterized by more social fluidity and diversity than the village.  
10 Most of the residents of this community had left their villages in the coastal region of  
11 Sundarban (South 24 Parganas district) after the cyclone Aila, which caused large-  
12 scale destruction in the area in 2009. For some, displacement had meant social decline  
13 and poverty; yet, for others, the chance to move to the city and engage in paid labour  
14 had made it possible to save money and move upward. The neighbourhood looked  
15 shabby with its houses made of mud, bamboo sticks, and plastic sheets; yet, the  
16 interiors of the homes were usually neatly furnished and included such expensive  
17 items as flatscreen television and branded smartphones. Even the few wealthy people  
18 of this community did not have many incentives to improve their houses because they  
19 could be evicted any day. The city had zoned the area as a park, but it could not evict  
20 the people until it could rehouse them. Residents had built their houses and lived there  
21 without paying rent by bribing the local police and the party office.

1           As mentioned before, people of this community found phones useful for  
2    coordinating family relationships and work, but smartphones were also used to  
3    navigate the social fluidity in families whose members had drifted apart socially. For  
4    instance, a woman, who worked as a maid had arranged her daughter's marriage to a  
5    well-to-do family. Her interaction with her daughter and the in-laws was now limited  
6    because visiting her informal neighbourhood would have disturbed the upper-class  
7    status of the daughter's in-laws. Mother and daughter were, therefore, able to see each  
8    other only seldomly, but they exchanged videos of each other and especially the  
9    daughter's children over their branded smartphones. Another couple kept in contact  
10   with their sons by calling them, despite the rift with their sons' families. The parents  
11   had converted from Hinduism to Pentecostal Christianity; thus, their sons' wives  
12   forced them to move out of their own house. They relocated to the informal settlement  
13   and did not visit their sons' families; however, they could stay in touch with their sons  
14   over the phone despite the social rift. The possibility that phones offer staying in  
15   touch despite social ruptures contributes to the changes in how social hierarchies are  
16   experienced and understood.

## 17   Digital recreation as social change

18   In both locations and research periods, the internet was used directly or indirectly for  
19   recreation. The digital divide debate has overlooked the use of digital media for  
20   pastime and amusement since these uses have not been considered as offering

1 potential for users' agency. However, far from passive time-pass, recreational  
2 activities, too, involved social negotiations about family relationships and the line  
3 between the spheres of everyday life in terms of who watches which contents in  
4 which social contexts. The use of smartphones for entertainment challenges ideas  
5 about phone users as rational individuals in search of useful information with the help  
6 of ICTs, although entertainment is not entirely devoid of information. Television  
7 viewers in India, for instance, use soap operas to gain new knowledge on phenomena  
8 such as urban lifestyles and alternative family types (Johnson, 2001; Munshi, 2012).  
9 Rangaswamy and Cutrell (2012), who have observed that low-income youths in urban  
10 India used phones for recreation just as the villagers of Janta did, suggest that these  
11 entertainment practices have the potential to lead to new skills and abilities being  
12 discovered by offering a space to experiment with technology. They also argue that  
13 the use of smartphones to access entertainment can have a valuable social effect of  
14 binding people and creating an informal technology hub.

15 Both accessing and sharing music and films directly from the internet are fluid  
16 activities because one has great freedom to choose when to watch and listen and with  
17 whom to share the content. Even phone memory chips offered this kind of freedom.  
18 Most people find the way they can now reshape the line between work and leisure  
19 exciting and energizing. Whereas television and cinema hall audiences have to follow  
20 the program schedules, a person possessing a smartphone can select the time and the  
21 company they wish to share the content of their phone's memory chip Hence, leisure

1 activities can be constructed as more relational than before. A young woman, for  
2 instance, said that the smartphone allows her to watch serials while her husband  
3 watches films on the television. On the one hand, smartphones enabled household  
4 members to make their own choices on what to watch, and, on the other hand, parents  
5 found it easy to control how children used the shared family smartphone. For  
6 example, parents of a young girl preferred the smartphone to television because the  
7 daughter could only watch cartoons when her father was at home with his  
8 smartphone—had they owned a television, it would have been more difficult to keep  
9 her from watching television and neglecting her homework. However, for adult  
10 family members, smartphone ownership increased their opportunities to make  
11 individual choices over what to watch. Most families lived in one-room-houses and  
12 owned one television set, which meant that they had to agree to watch the same  
13 programs, whereas people could make individual choices about what they watched on  
14 smartphones. Women prefer to watch soap operas since they are designed for female  
15 audiences—they depict strong female characters and address topical issues from  
16 women’s perspectives. The leisure practices enabled by smartphones, hence, can help  
17 transform gendered kinship relations by giving women access to a greater variety of  
18 programs than they could access by watching television. Watching films and serials  
19 on smartphones offers a new freedom of choice and social experiences both in rural  
20 and urban India, similarly to Hobbis’s (2020) description of the role of movie  
21 watching on smartphones for kinship relations in Melanesia.

## 1   Conclusions

2   Attention to digital relatedness helps understand how media use is embedded in social  
3   hierarchies and their meanings, revealing how digital inequality emerges and how  
4   social hierarchies are transformed. The slashing of the prices of branded phones and  
5   internet access has diversified smartphone use among the people I observed in India  
6   in 2018. The branded phones have enabled such online activities as filming and  
7   sending video clips as well as watching television and films much better than the  
8   cheap semi smartphones used in 2013 did. Most young people who owned  
9   smartphones had acquired these skills, helping the older generation of their  
10   households master them. However, in 2018, it was still rare to find people using a  
11   greater variety of internet affordances—possibilities for action offered by internet—  
12   such as textual contents of the internet, payment, banking, and navigation  
13   applications, or even WhatsApp. Only those people who had a college education and  
14   a network extended to tech-savvy people could become skilled in using a variety of  
15   internet services. For them, smartphones opened up a wealth of useful information  
16   and data from which they could reap practical and even professional benefits through  
17   their access to educational contents. Hence, digital practices corresponded largely  
18   with social relatedness. The ability to use the many affordances offered by the internet  
19   was rare as it required higher education and interaction with people who already  
20   possessed these skills. Consequently, smartphone use has strengthened pre-existing

1     rifts between the more and less educated people. At the same time, the calling  
2     functions of the phones continued to be more significant for most low-income  
3     people's livelihoods and support networks compared to the textual information  
4     offered by the internet. The internet hardly offers useful contacts for people who seek  
5     work in the informal economy. Moreover, informal sector workers' social security  
6     was largely based on family and kinship; hence, the ability to call was more crucial in  
7     times of crisis than searching for useful information from the internet. However, as I  
8     have demonstrated, people who are seemingly digitally marginalized can develop  
9     unexpected ways to use digital technologies and refashion their relationships.  
10    Although these practices do not translate into drastic improvements or changes, for  
11    instance in economic power relationships, over time, these small changes can lead to  
12    epochal changes.

13           The workaround practices to tackle the high cost of internet access and lack of  
14    internet skills, such as buying content on memory chips, enable novel recreational  
15    practices. However, these novel practices by no means diminish the value of the  
16    ability to use the internet for a wide range of essential purposes, for instance  
17    economic transactions or remote learning. The pre-existing scholarship on digital  
18    inequality and divides has relied mainly on quantitative data and such general criteria  
19    for digital inequality as access, motivation, skills, and the autonomy of use to measure  
20    the empowering effects of internet access. However, even seemingly autonomous  
21    media use is embedded in social relationships in the sense that people learned how to

1 use services from others. Moreover, the focus on autonomous use can leave  
2 unacknowledged a great variety of digital practices, which users can find valuable and  
3 even transformative. The third-level digital divide—for example unequal outcomes  
4 and benefits of digital media use—is often understood through tangible benefits such  
5 as economic and political empowerment, although users increasingly avail of digital  
6 media for recreation, which can play a part in social and cultural change in multiple  
7 ways.

8         The central policy goal in India and elsewhere has been to tackle digital  
9 inequality by providing affordable access. Despite the slashing of internet prices, low-  
10 income people still tend to find mobile internet too expensive, which largely explains  
11 the wide usage gap in South Asia. My study demonstrates that although the high cost  
12 is the main barrier for internet use among low-income people, even affordable access  
13 may not translate into a broad range of internet uses. Being able to avail multiple  
14 affordances of the internet tends to require a higher-than-average level of education.  
15 In turn, this hinders the successful use of the internet for increasing equal  
16 opportunities in learning, which is one of the goals of the Digital India program  
17 (Ministry of Electronics & Information Technology, Government of India, 2019).  
18 Moreover, learning to use the internet to access useful information and services  
19 requires developing social networks that extend across social boundaries to those who  
20 are already practising these internet skills. My research exemplifies how digital  
21 inequality is influenced by both rigid social hierarchies and insufficient attention to

the role of social interaction for digital inclusion. Instead of access to digital services promoting learning and social mobility, higher educational level and social mobility tend to promote digital inclusion. Highlighting the importance of digital relatedness brings the complexity of digital use, relationships, and power into focus.

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<sup>ii</sup> [Attewell \(2001\)](#) coined the widely used terms first level divide and second level divide.

<sup>iii</sup> [Robles and Torres Alberro \(2012\)](#) first used the term third divide to address the outcomes and benefits of digital media use.

<sup>iv</sup> The dominant caste, both numerically and in terms of land ownership, is the Tilis (50%). Other major caste groups are the Bagdis (15%) and Casas (16%). Most Tilis and Casas own land, while most Bagdis, who are classified as a scheduled caste, earn their livelihood by means of daily labor—agricultural work or work in the brick factories.

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<sup>v</sup> These shops charged Rs 20–25 per film and Rs 2–3 per song, whereas one could purchase a large selection of songs and films in the village with just Rs 25.