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The Lives of Smart Phones: People's Relationships with Technology along the Tamor Valley



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Submitted in partial fulfillment of the requirements for Nepal: Tibetan and Himalayan Peoples, SIT Study Abroad, Spring 2018

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Acknowledgements

To all the people that have made my 3 and a half weeks journey in Northeastern Nepal so impactful, emotional and unforgettable. There were definitely just as many ups as there were downs during my trip, but it is the experience of both what makes the journey so special and whole.

There were many people who helped me with the logistics with booking bus tickets, getting me a conservation area permit, and finding accommodations and making sure I'm safe. I would like to thank Nyima Dorjee for all the support he has provided me before and during the ISP period, for arranging transportation, communication with people from his home village of Walung, as well as giving me guidance through my research as my project advisor. I would like to express gratitude towards Tseten Tashi and Chungdak for being my co-researchers, helping me through communications with people during interviews and familiarizing myself with the local communities, culture, and people. The hospitality I had received from both their families in Walung and in Kathmandu is incredible and I am so forever grateful. I would like to thank Martin Saxer for the extra guidance he has given me regarding my research in the area. David was one other SIT student that I traveled with this whole journey, and I am thankful for him being my travel companion and friend, whom I have shared many memories with on this amazing ride.

I would like to mention all the people that I have met and talked to during this journey; all the bonds I have made with people in Walung, Iladada, Lungthung, Lelep, Tapethok, and Taplejung helped shape my experience in Taplejung district and contributed to the success of my research. To Chungdak's family in Walung, you have been more than generous and incredible for the week that I stayed there. The food was beyond delicious and all the times you have kept me warm in the freezing cold and made me feel at home. Especially Acha-la, I am grateful to call you my friend and all the laughs we have shared. To the families I stayed with in Taplejung and Phikkal, thank you for all your hospitality and never-ending amount of food that I had the pleasure of stuffing myself. Thank you to the acha-la in Iladada, who threw me a lifeline with the

antibiotic that saved me from food poisoning and the day before my 8 hour hike to Walung.

The village of Walung is a truly special place, and I will never forget all the people I have met and the memories I have made there. I was definitely beyond lucky to have been a part of Nyesol with you, having the opportunity to help set up, wear a chupa, help carry the sacred scriptures around the village, and watch the puja take place. Thank you to everyone who has made my experience there so wonderful. I learned so much from each and every one of you not just about the culture of the place, but about life, nature, and people.

Lastly, I would like to thank all the staff from SIT: Isabelle, Hubert, Nazneen, Rinzi, Phurwa, Patty, and Dongga for all the help and guidance this semester and during the ISP period.



Author and the family she stayed with in Walung, as well as SIT student David with his co-researcher

Abstract

The way people interact with smart phones and technology in their everyday life can reveal a whole lot about a culture, history and politics of a given place. In the Taplejung district in Northeastern Nepal, the Tamor valley has been a historical pathway for trans-Himalayan trade, business, and commerce (Saxer: 2015). However, it is also considered one of the most virtually and physically remote places in Nepal due to lack of physical and Internet infrastructure that enables all kinds of access. Nevertheless, smart phones have become an essential gadget in most people's lives in this part of Nepal. In a place with such circumstances, I explore the way people interact with technology in their everyday life, what their relationship is to their phones, and how that reflects a broader aspect of history and culture in the area. It is an anthropological and humanistic account of technology and its interaction with people. Through the methodological approach of photography, studying the pathway and through personal accounts of the people that I encountered, I argue that physical infrastructure development has profound impact on mobility, culture and everyday life along the Tamor valley.

Introduction

What makes a place connected? Is it technology that allows people to involve themselves in other parts of the world, or does physical infrastructure also play a role? How is life in the Tamor valley shaped by technology and the existing infrastructure? As many people's lives are becoming deeply entrenched with technology, and especially smart phones, one can easily take their existence for granted and forget how much they rely on them. The use of Internet has become a fundamental aspect of phone usage in many developed places, in which the Internet infrastructure has well integrated itself within the society's many existing infrastructures. However, in Nepal, Internet was only introduced in the year of 1995-1996 by a private company, and is considered immature in terms of technology infrastructure and the quality of service delivery (Chautari: 2015, 1). Places like Taplejung district are well behind in terms of Internet infrastructure development; with only the district headquarter receiving adequate cell service from the major telecommunication providers. Despite that, smart phones are well dispersed throughout the entire district, with many people in remote villages owning and actively using smart phones.

The Tamor valley has a rich history of trans-Himalayan trade, with Walung being one of the centers of commerce that started around the 16th century and continues well into today (Saxer: 2015. 105-106). With Walung connected to Tibet in the northwest and Taplejung connected to the rest of Nepal and India, the Tamor Valley is very well travelled among traders, businessmen, porters, immigrants and even missionaries (Saxer: 2015, 110). One might consider the Tamor valley one of the most remote places in Nepal, since it lacks all sorts of infrastructure and is mountains away from the capital. It takes at least two days just to walk from Tapethok to Walung, and the road from Taplejung to Tapethok has only been built for a year. Despite the lack of infrastructure, the exchange, movement and ambition of people and commodities is what has shaped and still shapes the Tamor pathway. Based on just the mobility and activity of the pathway, one can argue it is anything but remote. Moreover, people living along the pathway are very well informed about the outside world.

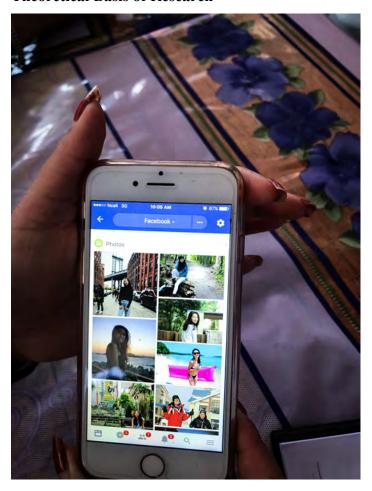
Due to the unique combination of its geographical history and circumstances of development, I became curious about Taplejung district and developed a series of

questions: how do people use smart phones when there is no Internet? How does the dependency on phones change when the physical infrastructure that supports the Internet is non-existent? How does that relationship between people and their phones reflect the larger politics of the infrastructure development as well as the ever-changing dynamics between the people and the Tamor Valley? I came to develop these questions while traveling through the Tamor Valley, collecting personal accounts of people's experiences with technology as well as photographically documenting people's use of technology in their everyday life. I would like to emphasize that my findings are in no way generalizations or conclusions made about the area. They are compilations of stories and accounts provided by some individuals that I had the chance to meet and converse with. This anthropological approach provides an in-depth look at the everyday use of smart phones and the intimate interactions people have with technology in this part of Nepal.

My research focuses on four keywords: culture, identity, mobility and change. I argue that the relationship with a smart phone is a culturally specific one. When the use of a phone is so intimately tied with the social, the relationship inevitably is affected by existing social-cultural boundaries and expectations. One specific aspect of culture that I will examine is the effect of gender in the relationship with smart phones. The second keyword, identity, explores how the smart phone reveals intimate details about a person's life and identity. I look specifically at apps that people use, how the apps are being used, and how the apps reflect people's individuality. Mobility explores the movement of people along the Tamor pathway. It tells about how information is being circulated and spread, and how that movement impacts relationships within communities through the smart phone. Lastly, through the methodology of studying the pathway, I examine how infrastructure development brings change and movement to the Tamor Valley. Infrastructure development is key to mobility and enabling certain technologies to be used. I present and discuss different relationships between people and their smart phones along the pathway due to different stages of development. I would like to emphasize that change is a constant even in a remote area like the Tamor valley, as many developments took place in just the three short weeks I had been there. All of the observations and insights that I had can only speak for the recent past and the time that I spent there. The motor road is continually being built to the most remote village along the pathway as I

write, and relationships between people, places, and objects are constantly changing. I hope this exploration can invoke reflection upon issues of development, the use of technology, human relationships and how intimately related everything is to each other.

Theoretical Basis of Research



An informant holding her phone, showing my Facebook profile on her Facebook Lite app. iPhones are uncommon in Taplejung due to the large popularity of Samsung and other Android phones. Facebook Lite used often instead of Facebook itself due to its lesser data uptake.

Only recently have anthropologists started examining modern technology as a social and cultural phenomenon, and the way social media has evolved and governs people's daily lives. Geert Lovnik's theory of social media as an ideology that governs people's social behavior is one that I take particular interest in (2016). He argues that

social media is "technological mode of the social", as it is becoming a part of how we socially engage with each other in our everyday lives (2016). Social media is enabled by the use of computers and smart phones, and most importantly the Internet infrastructure. In a place with access to Internet, owning a smart phone is the basis of participation in the "mobile information society"; it affects how we see the world around us, how we perceive our peers, and most importantly, how we interact with our peers (Piipuu: 2017, 5). Since the introduction of phones at the end of the 20th century, mobile phone has become undoubtedly one of the most important gadgets to own. The smart phone developed as a result of the growing Internet infrastructure as mobile data became available and social media became the prominent way to connect for many people. It has become a part of people's social engagement and identity creation (Piipuu: 2017). When the phone is so intimately related to our everyday lives and how we connect with others, it is worthy to examine how that dynamic may or may not change due to the lack of Internet.

Technology itself having agency is an important acknowledgement and basis to my research. Bruno Latour introduces the Actor-Network-Theory, which is a methodological approach that emphasizes the existence of constantly shifting relationships that sustains everything we know (2005). Latour argues that nonhumans, such as technology, have the capacity to act in their own right, creating and sustaining relationships such as one we have with smart phones (1995, 2005). The Internet and physical infrastructure development in Taplejung district is a negotiation between different actors including government officials, telecommunication providers, that has a direct impact on how the smart phone is used. The seemingly inanimate smart phone comes to life when enabled by us, the humans, and vice versa. Thus, studying technology can reveal a lot about us as human beings, and our relationship to technology.

Media anthropology preserves the methodological and conceptual assets of anthropological tradition, but focuses on the manufactured culture of everyday life (Piipuu: 2017). It explores media as a part of our culture, bringing "hermeneutic and materialist elements" together and how those dynamics play out in our everyday lives (Piipuu: 2017). My aim of this research is to examine ways modern technology and

media are integrated in people's ordinary lived experiences. It fits within the framework of media anthropology and its approach of studying the culture of technology.

As Nepal's Internet infrastructure began to develop at the end of the 20th century, smart phones came into the market in the early 21st century. However, the Internet development faltered behind as smart phones reached every part of Nepal. The unequal development of the technology and the infrastructure creates an interesting inquiry to how the mobile phone may or may not impact people's social interactions, identity creation, and all the ways mobile phones have changed people's lives in places that lack the support of the Internet infrastructure.

Network and Communications in Nepal



View of the NTC office and its's signal pole on the top of the building from a distance in Taplejung

The two largest network and telecommunications providers in Nepal are Ncell and Nepal Telecom (NTC). NCell is a private corporation that is a part of Axiata Group Berhad, a Malaysian multi-national telecommunications group. It is the most popular in

Kathmandu, Pokhara and other major cities in Nepal, and has a cheaper phone call package than its competing provider, NTC, according to my informants in Taplejung. For that reason, many of my informants, including some NTC users, prefer Ncell. However, this preference is limited to people living in places that receives Ncell signal, which excludes most places in Taplejung district. Excluding Taplejung municipality, which is the headquarters of the district, Ncell signal is not available in most villages in the district. In mountainous regions of Nepal, Nepal Telecom is the most prominent cell service provider covering many of the remote areas, providing landline service as well as cell service.

The only places that have 4G network are big cities including the capital Kathmandu and Pokhara, according to the chief officer of Nepal Telecom in Taplejung Municipality. Later I discovered that 4G also became available in Birtamode, a city in Southeastern Nepal. The country still runs on landlines and satellite via. radio waves for the most part, so places like Taplejung only has a maximum of 3G network. With the exception of Walung, there was a landline installed in every house that I had visited in the villages that I went to, including Taplejung municipality. It is an essential mode of communication in this part of Nepal as cell network is fragile, unreliable, and inaccessible in most villages.

Methodology

Phenomenological Ethnography

A phenomenological approach to studying technology is a challenging yet insightful. Phenomenology can be defined by Edmund Husserl as "an interest in things, events, and situations that can be directly detected by our senses and intuition (Piipuu: 2017). While conducting interviews and many participant observations, I spent much time in people's homes, asking about their lives, and seeing their daily interactions with their neighbors and community. Michael D. Jackson made significant contributions to the development of phenomenology and emphasized the telling of "everyday life of ordinary people" (1996). According to Piipuu, he also analyzed the human-technology interaction, and explored the intersubjective relationship between objects and subjects (2017).

Following his footsteps, I aim to do the same in my research. This methodology enables me to analyze the way people use their phones in the average everyday manner as well as incorporating my own lived experience during this time period to help enhance my understanding of the research topic.

Pathway Methodology



A porter from Walung traveling through the Tamor pathway with his mules, carrying cement back to the village from Tapethok.

The Tamor Valley has a lot to offer in terms of history, politics, trade, and culture. Studying a pathway as a methodology is proposed by Martin Saxer, who also walked through the same pathway while studying cross-Himalayan trade in the valley (2016). Pathways, especially the Tamor pathway, shape culture, stories, and people passing through, and are conditioned by the terrain, infrastructure and environmental factors (Saxer: 2016). He suggests that the connections in the valley are made by the passes and transformed by roads and borders (2016). By walking along the pathway, I take a closer examination of the connections people make and how they are related to the physical path

and terrain. The methodology can make connections between the pathway and technology, how technology is mobilized and immobilized, and how people and technology move up and down the pathway and are thus affected by it.

Starting from the district headquarter, I took a jeep from Taplejung municipality to Tapethok. Tapethok is the first village entering the Kachenjunga Conservation Area, and the last village where motor road are accessible. After spending a night there, I then followed the Tamor River and walked into the valley. Following the river, I passed and stayed at Lelep, Lungthung, Iladada, and Walung (Olangchunggola). In every village, I conducted formal and informal interviews and made observations regarding people's relationship to their smart phones as well as the people's relationship to the pathway. With Walung being the biggest village and the last before reaching the Chinese border, I spent the longest time there. Traveling through the pathway allows me to experience the environment first hand and employ all of the senses, the physical, emotional, visual, tactile, etc.

Photography

The human lived experience involves multiple senses of understanding the world around us. Certain cultures have heavily emphasized on specific senses in our body in knowledge production such as sight and hearing common in the Western world (Classen: 2016). With Western academia having traditionally focused on written knowledge production, I aim to add an extra dimension of understanding knowledge through the means of the visual. Human beings rely heavily on sight to make sense of our world, creating knowledge about everyday life. Images have the power to invoke an array of emotions and responses: pleasure, desire, disgust, anger, curiosity... (Sturken et al.: 2018). To adopt photography to my methodology of research can provide an extra dimension of enhancing one's understanding of how smart phones are used in people's everyday life, especially with photo-taking being a integral part of smart phone usage. By using only my own smart phone to document the findings, it creates extra opportunities for me to bond with and learn from the people that I am interacting with.

Limitations

There are several limitations to my research and it is important to recognize those limitations in order to reflect on my research and make improvements for the future. Positionality, I have come to experience for myself, is the most important consideration during fieldwork. Fieldwork unfolds as a constant intersubjective interaction between the researcher and the interlocutors, and it is paramount to constantly reevaluate one's position as a researcher in the field (Rabinow: 2011). Many times during fieldwork, I have experienced how my own positionality as a Chinese woman has impacted the way I was treated and looked at. This has tremendous impact on how I subjectively perceive my surroundings and thus the data that I collect for my research. Everything from staying in a homestay to interacting with my co-researcher is part of the subjective experience that shapes my research.

Being receptive to people's interactions with me and aware of my own emotions and reactions towards certain occurrences is key to learning about the culture of one place. I have faced frustrations towards peers, my recurrent circumstances, and myself. Sometimes, my co-researcher would repeatedly misunderstand my questions and completely stray the interview away from what I really intended to ask. Other times, I would find myself sitting at my homestay, not knowing how to integrate myself into the community and feeling extremely unproductive. I even had frustrations towards some of my interlocutors at times with some of them seemingly blowing me off and having miscommunications. I was also elated at times with the opportunities I was given, like being able to carry the ancient scriptures from the 500-year-old monastery in Walung around the village on their annual religious puja called Nyesol. When I was able to make a connection with an interlocutor and develop trust, or when my homestay family cracked jokes with me and included me in community events, I felt a lot of love, trust, and compassion. Being aware of my emotions helped me reach a more comprehensive understanding of how others could possibly experience life in the area; at the same time, I constantly reflected on my positionality as a foreigner and how that influences to my subjectivity and emotions that were experienced.

Although an ethnographic approach is an effective methodology to enable people's stories and lives, it also limits the ability to generalize the findings to a larger population. That limitation in itself could be a positive outcome as well, as each individual account as a result is more detailed and rich. Time was definitely a limitation in my research due to the short period of time I had to conduct fieldwork. Having spent only less than a month in Taplejung district, there was not too much time to familiarize myself with every place that I visited, which contributed to me not being able to form as many bonds with the people as I would have liked to. For the type of information I am looking to get, having the time to get to know the people and develop trust with them is essential. Conducting ethnographic research requires encountering new friends, as the insight I receive mostly comes from what I learn from different individuals and my interactions with them. With that being said, access was a challenge and a limitation, as I struggled to find opportunities to initiate conversations with people and to gain access. It was challenging to just approach people and make friends without a seeming agenda, and I did not want to approach people just to ask them questions about my research. Because of that, I was not able to make as many connections and talk to as many people as I have hoped for. However, limitations are inevitable in research and one can only reflect upon them for improvements in the future. It is beneficial to recognize them and how they shaped the outcome of the research to better understand the nature of fieldwork and the research topic.

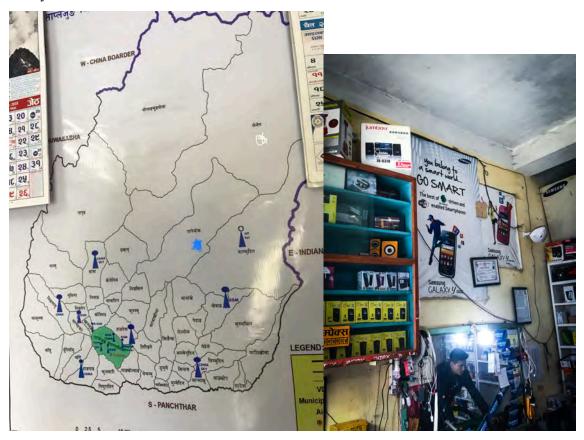
Everyday Life



Two shopkeepers in Taplejung passing time individually while watching their shop, not interacting with each other even though they are right next to each other.

Life in the Tamor Valley faces many uncertainties regarding network reception and electricity-run infrastructures. Even though NTC has several mobile towers set up in the Taplejung district, they are not enough to cover most areas in the Tamor valley. According to an officer working in the NTC office in Taplejung, there are a total of twelve working towers in the district, excluding one that is in the midst of construction in Yamphutim. NTC offers a mobile service called Sky, specific for remote areas like Taplejung. There are six Sky towers and six NTC towers set up in Taplejung district, with four NTC towers set up within the Taplejung headquarters alone. Apparent from the map, there lacks mobile towers in Olangchunggola, Lungthung, and the majority of the Tamor Valley. One mobile tower was very recently constructed in Lelep, which also weakly covers the village of Tapethok. On the way between Tapethok and Lelep, the cell signal is sporadic and unpredictable with weak signals returning once Lelep is reached. Beyond Lelep, any kind of cell signal is out of the question. Ncell is not in the picture

once one leaves the main area of Taplejung municipality. In result to this unconventional network infrastructure, landlines are found in most households for communication along the valley, with the exception of Walung, which only has four landlines in the whole village. (Olangchunggola) Through different encounters with people in the valley, I argue that a larger discourse of political and historical decisions have an impact on the development of infrastructure in this part of Nepal, thus affecting the everyday life in the valley.



Left: map of Taplejung district and the excisting NTC mobile towers established in the district. Right: interior of a phone shop in Taplejung municipality, showing the Samsung advertisement poster on the wall.

In Taplejung municipality, the headquarters of the district, most facilities like healthcare, network, motor roads can be found. The mode of economy is drastically different from ones found deeper into the valley. At every corner, a phone shop can be found selling smart phones and smart phone gadgets. I tell the story of Shankar Khatiwada, a phone repair shop owner, who has been running his business for 25 years.

Shankar grew up in Taplejung, went to school in Taplejung and college in a nearby district called Ilam. He started the phone repair business when he returned to Taplejung after his education and has been running it ever since. His first smart phone was a Samsung Galaxy, which he bought when it first entered the market in Taplejung. "The smart phone nowadays is a needed gadget...for everyone," he had told me, "it is necessary for social sites like Facebook. Maximum uses Facebook and Youtube." Most of the apps that he uses the most are social media and messenger apps like Whatsapp, IMO, Wechat, and Viber. It was important for him to communicate with his family and friends through those apps and also to receive new information from his peers. "It makes [it] easy to talk, to communicate. In any new things happen, they post online. I know it." Additionally, the smart phone is essential for his business. I asked him what would happen if he did not have his phone. He told me that, "I think I wouldn't get latest news, wouldn't [be able to] communicate for business, to bring goods."

It is evident from my interaction with Shankar the level of dependency he has on his smart phone, which penetrates every aspect of his life. His mode of communication is transformed through the use of social media apps, whether it is with his family, friends or business partners. During my interview with him, he was interrupted at times by phone calls and people asking him to fix their phones. Being able to reach people on social media or messenger apps opens up people's availability, and social expectations change in result of that. "Smart phones make people busy. When we friends in a round circle sitting, we're not talking about what['s] happening here. Everyone is looking at their phone." In a place where the Internet infrastructure is relatively developed and omnipresent, everyday life seems busy and there's always something to look at on the phone. Physical human interaction is no longer the primary mode of time passing and the phone becomes everyone's best friend.



Anil, on his phone outside his shop, playing a poker game.

Historical negotiations and political decisions impact development, which in turn affect the mode of economy of a place and the livelihoods of people. This connection was made as I encountered a man called Anil across the street from the lodge I had been staying in Taplejung municipality. It was in an older part of town, and most shops in that area are candy shops with their main customers being children and students after school. Anil was sitting on a small stool right outside his shop, his head buried in the card game on his phone. He did not notice when I walked up to the shop until a few minutes later. My friend asked if he had Cadbury chocolate and he said no. I stood there with my friend and did nothing for a while. He later stopped playing the card game on his phone, put his phone away, and started listening to me conversing with my friend. Eventually, he was engaged in our conversation and we started talking.

Anil revealed a great deal about life in Taplejung. Most people in Taplejung run small businesses like his, where they sell candies and daily necessities to locals. I asked if he made good money, and he laughed a little and said the profit margin is so small it is close to zero. "But I have a lot of free time and it's relaxing," he said. He later informed

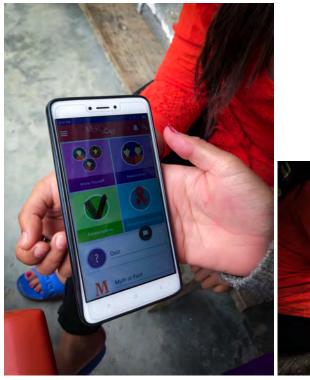
that his wife usually runs the shop and he actually teaches at a school in Taplejung. "Most people in Taplejung [district], the village people, have good business from growing cardamom and exporting them to India and the rest of Nepal. But in Taplejung [municipality], it's business like this (referring to candy shops)." I wondered if the mode of economy had always been this way, a mainly cash-based one in Taplejung municipality. He told me Taplejung has always been a business hub and economy run by trade and exported goods. The economy was largely improved by the introduction of mobile service about 10 years ago, according to Anil, due to the sudden ability to communicate across distances. "People could reach customers just through phone instead of physically going to them," he said. In other words, people save a lot of time from no longer having to physically make negotiations for business. Additionally, the introduction of motor roads to Taplejung further increased access to commodities and thus expediated the transformation from a trade-based to cash-based economy.

Kamal is another teacher, who teachers English at a different school. He told me that the motor road to Taplejung was built around 37 years ago in 1979, around the same time King Birendra had switched the district capital from Walung to Taplejung. "Ever since, the business center shifted from Walung to Taplejung; the town started expanding, new buildings being constructed, and more people from nearby villages started moving here. But before that, Walung had always been the business hub due to its connection to Tibet." Anil later confirmed that the mode of economy had shifted from trade-based to a cash-based due to the construction of the motor road, enabling cars and trucks to access Taplejung. The changes that have happened in Taplejung were directly impacted by the bigger politics of development in Nepal.

There had historically always been competition among pathways that are influenced by politics, infrastructure and terrain (Saxer: 2015). Not only is there competition among the pathways in Nepal, but also within the Tamor Valley itself that is constantly shifting and changing state of affairs within those hubs. The shift of district capital was one of those circumstances that had impacted the economy of both Walng and Taplejung. Physical infrastructure development came to Taplejung in result, followed by network and other essential developments. From one decision to change a district capital

made by the central government, lives of the people in Taplejung are transformed through the series of developments that followed.

Life in each village after Taplejung municipality slightly differs as the reception capacity of each gradually decreases. Tapethok still receives signal and data, but the extent only allows one to receive notifications but not enough to remit or download anything on their smart phones. The motor road from Taplejung also ends in Tapethok. From my interactions with some individuals in Tapethok, their lives seem to be significantly less dependent on their phones, but still rely on them for certain purposes that is relied on the Internet.





Left: The app, Merolagi, shown on Kabita's phone. Right: Kabita and her friend passing time outside the home. Even though she was holding her phone, she isn't doing anything with the phone due to the lack of good signal in Tapethok.

Kabita Karki is a 23-year-old government health worker. She had come from another area of Nepal and has been sent to work in Tapethok for one and a half years. Where she came from had access to network and Internet, so her life must have changed since moving to Tapethok. She told me that she liked Tapethok very much, because it is

peaceful and very beautiful. However, since the network is not great, she could only use her smart phone to make phone calls and sometimes respond to people on messenger apps. She is still able to load information on apps like Twitter, Facebook, and Instagram, but the quality of the connection inhibits her to do much with those apps such as video calling. Her friend, Susmita Rai, joined us outside Kabita's home, and also expressed similar sentiments. "[The network is] only good enough to say hi to my family, but that's enough for me," Susmita said. Since not many people get sick that often, and people who contract serious diseases just go to Taplejung, they have a lot of free time to themselves. Watching television and playing Candy Crush are some of the usual pass times.

It was not until I mentioned apps that they pulled out their phones to show me. Unlike many people I saw in Taplejung, Kabita and Susmita did not hold on to their phones like they were ready to use it. Smart phones seem more like a mere tool for phone calls and time-passing in Tapethok. It is a result of an interesting intermediate between a place with good network connection and a place with no connection at all. Since connection is technically still available in Tapethok, social media apps are being used, just in a nonconventional way. Kabita and Susmita did not check their phones every few minutes, expecting people to message them and vice versa. They did not check their Facebook newsfeeds every hour and checked for daily news. Also, due to the different mode of economy in Tapethok, people generally have a busier daily routine: working in the fields, doing house chores and making food for people. Life in Tapethok seems more in the present, people reacting to situations as presented in front of them instead of what is on the screen of a smart phone. This trend continues as we enter the valley and reach villages like Lelep and Lungthung and Walung.

Everyday life is drastically different in Walung, and that reflects in people's use of smart phones. Walung is located on top of a flat hilltop, which parts of have been destroyed by a landslide few years ago. Unlike most other villages in Taplejung district, Walung has no agriculture and only engage in business and trade for economy. Nevertheless, people work very hard to sustain themselves due to the way of life and the existing mode of economy. Acha-la, whom I stayed with for nine days, was my closest interlocutor and friend. She spent most of her life getting an education in Dharjeeling,

India and had been living with her family for seven months in Walung. Her daily routine consisted of:

"Usually in the morning, I have to wake up at 5 or 5:30am. After that, we have a lot of cattles and yaks. For them, we have to cook the food for them. Then we have to give that food to them. Then we have to take [them] to grasslands. After that, we have to do a few minutes for puja, offer for god and all. Then after that, we have to cook breakfast. Then I have to offer for my family (offer food). After that, I have to do cleaning. Then lunch is after, and I have to prepare for that. Took bath, washing clothes, plates...then after 3pm, again I have to cook food for yaks and all. By 4:30, 5pm, they will come [back for food]. So I have to feed them. Then, again, I have to prepare dinner. Everything."

-Interview excerpt from Acha-la, 05/08/18

With so much to do in a day, she barely has free time for herself, let alone go on her phone. Whenever she did have free time, she would go talk to people and sometimes host dance parties with her friends. Since there is no network in Walung, most of my interlocutors, including Acha-la use their smart phones for taking pictures, playing games, listening to music, and watching videos. All of these functions are only used when they have free time. Due to the difference in lifestyle impacted by the terrain, physical location and the mode of economy, people in Walung generally have a busier schedule, impacting the way smart phones are used in people's lives. Due to the discrepancy in network infrastructure development as well as mode of economy along the Tamor Valley, everyday life looks very different for individuals living in different places along the pathway.

Lives of a Smart Phone





Top: A woman selling vegetables at the farmer's market in Taplejung. She's holding on to her phone even though she isn't using it.

Bottom: Two Samsung phones lying on the bed in a home in Walung. It is not used often, but it is always made sure to be charged everyday.

From a place with Internet to a place with no connection at all, a smart phone's agency is determined by its physical location and the user. In a place with adequate network connection, the smart phone comes to life with its many functions and is able to assert its influence on the user. Specifically, apps are the flesh of the smart phone that enables it, and the different apps that are found on different people's phones reveal individuality of the user, the smart phone itself as well as people's relationship to their physical location.

In Taplejung municipality, the smart phone asserts its agency on its users through its social and communicative functions. Shankar uses his phone mostly only used social media apps to communicate with his family and check for current news (more on page 17-18). He emphasized on the importance of the smart phone in keeping in touch with his family and friends who are not physically close to him. I met a friend called Preeti, who added me on Facebook right away upon first meeting. After that initial meeting, she has often reached out to me on Facebook messenger, asking me what I was doing and so on. Interestingly, when I was physically with her one time, she pulled out her phone and started video calling a friend living in New York City. She introduced us over the video chat, and continued conversing with him afterwards. It was as if he was physically there with us, and she was simultaneously engaging in a conversation with both him and me. The smart phone has the ability to bring people into a different space, a social space where physical distance does not exist. For both Shankar and Preeti, their phones are a mode of the social, bringing people physically far away to a present virtual space. The life of a smart phone in Taplejung is one with agency and full of purpose.

In Tapethok, the smart phone has a much different role in people's lives. Kabita from Tapethok has many apps on her smart phone that is related to her profession of health worker. She told me about apps like Mediscape, Merolagi (app for family planning and sex education), and CBIMNCI (app about pediatric health) that she uses when she sees patients in the village. Since they work off-line, she is able to receive information regardless of the quality of the network. Besides those apps, she uses Twitter, Facebook, Instagram, IMO and many other social media apps, but not in the same way she used to when she did have good network. The health apps perfectly reflect her identity as a health worker, enabling her to do her job out in the valley. With her phone only able to receive

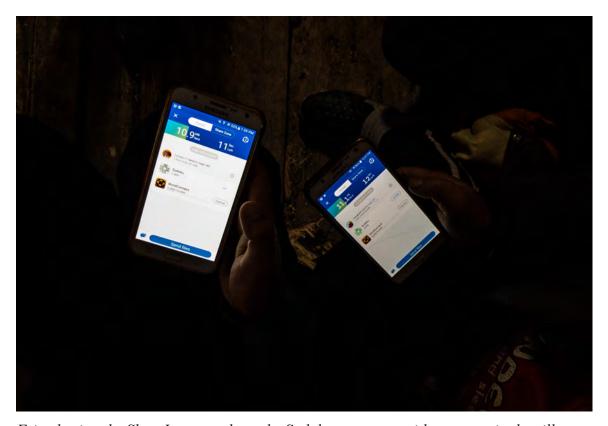
messages and not having stable network, the smart phone serves more as a professional tool and device for time passing.



Man in Lungthung checking his dummy phone that he had propped against a rock, because that is the only way the phone receives signal. Dummy phones are more effective in communication than smart phones in that area.

In the village of Lungthung, where network reception is equivalent to that in Lelep, the lives of a smart phone is quite uneventful. Since dummy phones are able to receive signals from the Sky mobile tower, in a way, it has more agency over people than a smart phone does. The few individuals that I encountered in Lungthung all said that they do not carry their phones with them since there is no signal, so there is not use for a smart phone. Dawa Sherpa, who is a 32 year-old woman from Dharjeeling, has married to Lungthung and been living there for twelve years. She bought her smart phone from Taplejung, and she has a lot of games on her phone. She revealed that mostly her children play games on her phone, so she rarely uses it. When I asked her about her phone, she went all the way to the kitchen to take out her phone and turns it on for me. It was clear that the smart phone is not frequently used in her life in Lungthung. She told me that she

uses her dummy phone to make phone calls, because it receives better signal than her smart phone, but she has all her contacts saved on her smart phone. The dummy phone does seem to have more agency in terms of communication with the outside world and with friends from other villages. The smart phone is only as useful as the user enables it in places like Lungthung, where apps and functions that could give them more agency are inhibited by the lack of Internet and its related infrastructure.



Friend using the ShareIt app to share the Sudoku game app with someone in the village of Walung. The app is essential to the circulation of apps and information in Walung.

In Walung, smart phones come to life with an app called ShareIt. It is a sharing app that is available in both Android and Apple phones, but sharing apps and music is exclusive only to Android users, which most people are in the Taplejung district. Everyone that I had a conversation with expressed how much of a game changer ShareIt has been for them in Walung. "Through ShareIt we can share everything, from our friends like games, movies, apps, music..." Acha-la told me, "ShareIt is the most

important in this village, because we don't have Internet." This app enables new games, new information, to enter and circulate the village. "Some people will go to Taplejung, then they will use Internet and download everything like new apps. They will update the older apps and they will come here and we can put the apps to all. Then we can update the apps and we don't need Internet for that." ShareIt solves the difficulty of not having Internet, keeping the smart phones updated in a way that would keep people using the phones. Not just apps, but videos, music, and photos are circulated through the app. Thus, ShareIt enables the smart phone to serve as a tool to pass on information between people in the village.

The lives of a smart phone vary within the Tamor Valley, enabled by the existing network and Internet infrastructure and thus can govern people's lives in different ways. When network is available, social media and apps that are enabled by Internet can largely impact the way people socialize and communicate. Consequently, lives of the smart phone become busy and purposeful. When network is absent, Internet-dependent apps are disabled and the smart phone has a much different lived experience and relationship with the user. It is no longer a mode of social in the way smart phones are in places like Taplejung, and exerts less agency on the user.

Relationships



Men in Walung playing card games to pass time.



One of my interlocutors recording the festival of Nyesol on his phone with a selfie stick. He told me he plans on posting it onto Facebook when he gets data.



Three men sharing a laugh as they watch a music video together in the community hall, where Nyesol took place.



Villagers dance to Nepali music and have a good time while their friend films them. The music is played through a speaker on one of these men's phone, connected by Bluetooth.



Young men in Walung sharing a moment as they select music to play at the religious festival of Nyesol.

Relationships between individuals, communities, technology and terrains are constantly changing and impacted by each other and external circumstances. Culture, education, mobility and personal upbringing can influence how an individual perceive the world and interact with the world. People's relationship with smart phone is just as influenced by those factors as people's relationship with other people. Moreover, smart phones have the ability to influence people's relationships with each other. There are several encounters that led me to that realization while I was in Walung.

Thupten Wangyal, a 38 year-old businessman, has a unique relationship with his smart phone. He does not use his phone often; but when he does, he uses it for playing games and listening to music. Through ShareIt, he also shares music and videos with his friends. He only carries his phone with him sometimes when he has work to do, but often leaves it at home. Being a businessman, he visits Taplejung twice a month and uses Internet there. "It is important in a place like Taplejung, but it also important to have it in Walung because I can learn a lot from the phone and I can play games and play loud

music on the phone. Use the calculators for business." He has an off-line app called "Learning Chinese" that teaches him Chinese on the phone. "Because we live in border, learning basic...like 1,2,3," he said. However, he expressed that it is difficult to learn Chinese through the app, because his pronunciations aren't corrected so Chinese people wouldn't understand him when he tries to speak to them. An advantage of having a smart phone, he shared with me, is that "you can download pictures of relatives from a place with Internet, and share them with people here." Since everyone is somehow related to one another in Walung, being able to share new pictures with people is an important bonding activity.

To Thupten, the smart phone made life easier in Walung, but is not a life changing invention. "Before, we used to use the Walkman to communicate with each other and carried big cameras to take pictures. Now that is all in a smart phone. But since there's no Internet here, those are the only functions that we use on the phone." In other words, an older form of technology has always covered the main purposes of the smart phone that he uses for, which are the camera and communication. So having a smart phone now doesn't transform his life. He gets frustrated towards his phone when the network is not good, "in Tapethok, but never here. There's no network here, so [I'm] satisfied." Since he knows there is no network in Walung, the expectations he has for connection in places like Tapethok and Taplejung do not exist when he is in Walung. "In places with connection like Taplejung and Kathmandu, if my phone is not in my pocket, I feel like something is missing. If there's free time, I take my phone out. But in place like Walung, everything change[s]. Here, we have work to do. In Kathmandu and Taplejung, we don't know people. But here, we know everyone so we can talk and play [with people]." "In city, people have no time to talk or play, so we play with the phone."

Thupten's relationship with his smart phone changes when he goes to different locations along the valley. In Taplejung and China, he relies on social media to communicate with others as well as passing time when he does not have friends to physically interact with. He becomes more dependent on his phone in places with network. In Walung, the combination of not having network and him knowing everyone distances him from his smart phone and transforms their relationship to a less interdependent one. Additionally, Walung's proximity to China made Thupten and other

Walungpa businessmen's relationships to their phones unique and that is revealed through his use of the Chinese app. It also reflects the close-knit community that Walung is as a village partially as a result of the lack of Internet. Since everybody knows each other and there is no social media to rely on for connection, the smart phone is not a mode of socialization, but is a tool for socialization. Smart phones have the ability to create and maintain bonds in Walung. This is further confirmed by one of my interlocutors, Tseten Gyalpo expressed that, "phones bring people closer because it always leads to more topics to talk about, and we get to know each other better because of it."

ShareIt is the app that enhances that bonding factor. "Because of that app, all the people [are made] closer. Because of that app, we can share through that app. We have to share everything from that app... All the friends make closer because of that app." There were many instances during my stay, which my friend from Kathmandu had used ShareIt to send people games and songs. The next day, a lot of other people had obtained those games. Through the observation of how ShareIt is used and my interactions with people, the smart phone is evidently a bonding tool.

While the smart phone reveals its bonding and educational nature in Walung, it also revealed a tremendous aspect of its culture that is gender role. Yeshi Dendup was my neighbor in Walung, and she married at the age of eighteen by arranged marriage from her parents and had her first child at nineteen years. She is only 25 years old and she has two daughters, one six years old and the other only two months. She often came over to the home I stayed at in the morning, sometimes with her two months-old daughter and drank po cha (Tibetan tea) with my homestay family. Over time, I asked her about her life in Walung.

Yeshi Dendup grew up in Walung and attended the tiny public school below the monastery until class five. She has a feisty and bright personality, always speaks with a lot of punch and determination. While most people avoided speaking with me because they knew I did not know enough Tibetan to make conversation, she was never afraid to speak to me. I never saw her carry any digital gadgets with her, but I asked if she had a smart phone anyway, and she did. She has a LAVA smart phone. She said she usually plays music and dance to it, sometimes with friends and sometimes by herself at home.

She does not use social media in places where there is network, since most of her friends live in Walung and there isn't any network there. She also watches videos, looks at pictures, and sometimes plays games. She revealed that she feels shy to use her phone in front of other people because of the judgment she gets from them, especially older women. She would only use the phone at home, when no one is there to watch and when she gets free time to herself. She feels bad that she does not feel comfortable enough to use her phone in public. There were only a few other young women like herself in the village, who are mostly married and have young children. She said only a few women in Walung have smart phones, and most of them are either her age or somewhere in their mid-thirties.



Women of Walung participating in Nyesol. They sit separately from the men in the village, who are dancing and hanging out just a few meters away from the tent.

Women in Walung have very specific gender roles, which creates a unique relationship between the few women with smart phones and their gadgets. At the annual religious festival called Nyesol that I was lucky enough to participate in, most women and men rarely interacted with each other and sat separately from each other. Before the puja started, people in the village had started collecting food from every house and

preparing for the festival. Volunteers of all age and gender took up different roles of collecting rice, meat, butter, tea, potatoes, etc. There is a communal kitchen set up for the festival, and two women were selected to be in charge of kitchen duty. Even though the two women are in charge, there were many people who helped prepare the food, washed dishes, and brought food to people. Only women helped chopping vegetables and made tea, and some men and boys helped bring out the food, usually to other men and sometimes older women. No women were carried or used their phones, except for Achala.



Three of the younger women in Walung taking a selfie outside the Walung monastery. All three of them go to school in Taplejung and spend most of their time there during the year. Unlike the older women, they freely take selfies and videos in public.

Education plays a role in how social norms exert their influence on people in the village. The perception of education seems to transcend existing cultural norms, depending on the gender of an individual. Yeshi Dendup had told me, "Acha-la is an exception because she is educated and spent most of her life in India, so the social expectations do not apply to her." That is how Yeshi explained how Acha-la feels free to use her phone in public. For men, since they have historically been sent to cities to

receive education, phone usage in public is within the social norm and is common. However, they face a different social expectation and most of them are not exempt from it. Tseten Gyalpo had received an education and spent most of his life in Kathmandu. When he went back to Walung in order to help out his parents, that was when he reentered the social norms of Walung. "We are not supposed to talk to girls here, if they see us talking to girls, they will think bad things about us," he told me. He was referring to the elder generation of the village when he said "they". "They are very narrow-minded and most of them are uneducated." I asked if Acha-la is an exception, since she received an education in India. He said, "Girls who received an education abroad are less shy and more open to use their phones, because they have been outside. Acha-la never grew up here, so she's different." Evidently, the social expectations between men and women are different and the role of education seems to affects them differently.

The whole interaction had me realize the inherent gender imbalance that is culturally specific in this village and the potential change that is occurring at the same time. Through the examination of phone use in men and women in Walung, the cultural norms regarding gender role are reflected on the ways men and women use smart phones. Education appears to be the solution to break out of the pre-existing social norms for women, which then changes the relationship they have with smart phones. Education is enabled by change and mobility, the ability for people to move up and down the Tamor Valley. Thus, relationships between individuals, communities, technology and terrains are constantly affecting each other and making changes along the valley. Furthermore, roads will impact people's mobility in Walung and further expedite that change.

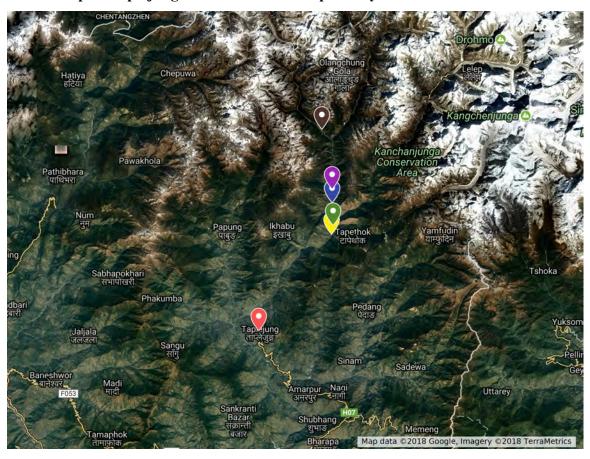
Conclusion

Through my fieldwork and interactions with many individuals living in the Tamor Valley, I aimed to understand the relationships people have with smart phones, how smart phones are used, and how these dynamics reflected a larger context of infrastructure development and culture in the valley. The many connections and encounters revealed a great deal about how technology interacts with people in this part of Nepal. The existing network infrastructure greatly impacts the livelihoods of people in different parts of the valley, and is reflected through how people use their phones on a

daily basis. It also enables agency in smart phones in their ability to influence the user and establish a relationship between them through apps. People's relationship with smart phones is largely influenced by existing cultural and social norms in a community. The smart phone has the ability to forge and maintain relationships and create mobility and change. As Nepal continues to develop and change, its infrastructures will continue to shape and transform people's lives in many different ways. Through a seemingly ordinary object like the smart phone, it can reveal a lot about how central decisions made regarding development can affect livelihood in remote areas like Taplejung. This can serve as a subject of reflection and discussion on how future decisions can be made regarding the remote regions of Nepal and their development.

Appendices

A. Map of Taplejung District and Tamor pathway



B. List of Interviews

*Disclaimer: all the names of interviewees have been changed in order to maintain anonymity

Sudeep KC - 04/15/18, Taplejung

Sameer Gurung – 04/15/18, Taplejung

Rojit Shrestha – 04/15/18, Taplejung

Shankar Khatiwada – 04/15/18, Taplejung

Kabita Karki – 04/16/18, Tapethok

Susmita Rai – 04/16/18, Tapethok

Dawa Sherpa -04/21/18, Lungthung

Namgyal Sherpa – 04/21/18, Lungthung

Lhakpa Sherpa – 04/21/18, Lungthung

Sonam Choenyi (Acha-la) – 04/24/18, Walung

Thupten Wangyal – 04/26/18, Walung

Yeshi Dendup – 04/30/18, Walung

Tseten Gyalpo – 05/01/18, Walung

Anil Raj -05/05/18, Taplejung

Kamal Shrestha – 05/05/18, Taplejung

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Suggestions for future research

There is so much I saw and learned during my time spent in Taplejung district that are beyond my research topic. It would take more than a month to explore those themes and topics. These are just some of the many potential research for the future scholars:

- -Gender issues in villages in Taplejung district/Taplejung municipality
- -Development of infrastructure (road, Internet, electricity, hydropower) and its impact
- -Tourism/trekking development
- -Trans-Himalayan trade and change in mode of economy
- -Cardemom industry
- -Outmigration
- -Border Politics