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Shutting Down the Mobile Phone and the Downfall of Nepalese Society, Economy and Politics

Peng Hwa Ang, Shyam Tekwani and Guozhen Wang

ABSTRACT

On 1 February 2005, the Kingdom of Nepal cut off all public telecommunication links to the outside world. According to the king, the shutdown in communications was to enable security operations against the Maoist insurgents. Landline and Internet services were restored gradually over the following weeks. But the pre-paid mobile phone service, which was used by the majority of Nepalese, stayed off for the public for 88 days. The shutdown in communications provided the environment for a natural experiment to look at the impact of the mobile phone. Researchers conducted interviews in three regions of Nepal that are taken by the Nepalese as representative of the country. Among those interviewed were politicians, including the then-prime minister, business owners, journalists, as well as military and police officers. The study found that the shutdown in mobile communications had limited success in helping security operations. The insurgents did not trust the mobile phone network and had developed their own parallel communication network. The larger impact was negative: it hurt the economy and alienated large swathes of the public, perhaps even contributing to the downfall of the king. The study suggests that the mobile phone is a social device and that if there is to be any shutdown of the mobile phone service, it should be done only briefly and for very clear security reasons.

KEYWORDS: mobile telecommunications, Nepal, blackout, impact of mobile phone, shutdown in telecommunications

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Social media over the Internet, instant messaging, and the short messaging service (sms) of the mobile phone have been credited (or blamed) for the August 2011 riots in London¹ and the revolutions in North Africa.² If the cause of the riots and the revolutions lies in the new

¹ Josh Halliday, "London riots: police to track rioters who used Blackberrys," *Guardian*, 9 August 2011, see <http://www.guardian.co.uk/technology/2011/aug/09/london-riots-blackberrys-police>, accessed 1 September 2011.

² Navid Hassanpour, "Media Disruption Exacerbates Revolutionary Unrest: Evidence from Mubarak's Natural Experiment," paper presented at the APSA 2011 Annual Meeting, Seattle,

communication technologies, shutting them down should minimize riots and revolutions.

Such an “experiment”—shutting down communications—occurred in Nepal in 2005 when it shut down *all* its telecommunication services for two days before restricting the shutdown to mobile telephony. The event offers insights into the impact of the mobile phone in such times of crisis. The Kingdom of Nepal cut off all public telecommunications links within Nepal and from Nepal to the rest of the world on 1 February 2005. According to the then-king, the shutdown in communications was to enable security operations against the Maoist insurgents. The shutdown in public telecommunications was total for the first two days. After that, landlines were the first to be restored. On the third day, landline phone service was available for an hour; on the fourth day, service was available for two hours, and so on gradually until full service was available. The Internet was restored over four to nine days, differing by region. But the mobile phone service stayed off for almost three months, with full service restored only 88 days later on 29 April. Post-paid subscription service was available after 50 days. In Nepal, however, the relatively high price of such a service means that only higher-income people can afford it. Most Nepalese can only afford pre-paid subscription services; these were restored after 88 days.³

The cut in the pre-paid service affords the opportunity to study the impact of the mobile phone by looking at how users responded when the mobile phone service was not available. How were their lives different when they had no mobile phone compared with when they had the mobile phone? How reliant is society on the mobile phone? How have business practices changed through the use of the mobile phone? To what extent is the mobile phone a device for an individual’s social network?

The study was conducted in late February and early March 2007, two years after the service had first been shut down. A peace accord had been signed several months earlier in June 2006. It was then possible to enter Maoist regions through roads that until then had been prone to roadside explosives, some of which indeed had been activated by mobile phones.

The Literature

In any discussion of the impact of technology, it is inevitable that one has to adopt one position of two diametrically opposed poles. At one pole is technological determinism, the notion that technology shapes society. Marx is often interpreted as a technological determinist for saying: “The windmill gives you society with the feudal lord: the steam-mill, society with the

Washington, 1-4 September 2011, see <http://ssrn.com/abstract=1903351>, accessed 1 September 2011.

³ Sugat Kansakar, managing director, Nepal Telecommunications, interview by authors, personal interview, Kathmandu, 25 February 2007.

industrial capitalist,”⁴ although that interpretation has been disputed.⁵ The technological determinist perspective has helped to explicate the impact of diesel locomotives on steam locomotive engineers,⁶ of machines and clocks⁷ and of the printing press⁸ on society. At the other pole is social determinism, which argues that the development of technology can only be understood in its social context. The seminal article by Pinch and Bijker⁹ uses the bicycle as an example for how the penny-farthing gave way to the chain-driven bicycle because of public safety concerns, among other things.

It is not always easy to categorize a perspective into one of the two “determinisms.” For example, Beniger¹⁰ has argued persuasively that the current information-communication technologies are the result of an attempt to develop devices to control increasingly complex systems. Ling¹¹ places Beniger in the technological determinism camp, and perhaps the title of the book *Control Revolution* lends itself to that interpretation. But going by the substance of the book—that information technology serves the social purpose of control—it could be argued that this perspective is one of social determinism.

Possibly because of this uncertainty, Ling himself argues for “interaction” between society and technology. While perhaps a “middle-of-the-road” safe position, such a view overcomes some deficiencies in both determinisms. The interaction perspective is superior to technological determinism because it considers the possibility of the technology being shaped by social forces. That is, it is very well possible for a technology to be used differently in different contexts. And it overcomes the problem of the consequences of technology on society that the social determinism perspective tends to overlook.

Studies of the telephone have found social uses (e.g., status, keeping in touch with family, overcoming loneliness) and instrumental or task-oriented uses (e.g., scheduling, ordering) regardless of whether the phone was fixed or wireless. Research on the use and impact of the mobile phone has shown that it is used as a tool for daily living, for information, for entertainment,

⁴ Karl Marx and Friedrich Engels, *The poverty of philosophy*, H. Quelch, trans. (New York: Prometheus Books, 1995) 119.

⁵ Daniel Chandler, “Technological or Media Determinism,” University of Wales, Aberystwyth (October 2000), see <http://users.aber.ac.uk/dgc/Documents/tecdet/>, accessed 4 February 2012.

⁶ W.F. Cottrell, “Death by Dieselization: A Case Study in the Reaction to Technological Change,” *American Sociological Review* 16, no. 3 (1951): 8.

⁷ Lewis Mumford, *Technics and civilization* (New York: Harcourt, Brace & World, 1963).

⁸ Elizabeth L. Eisenstein, *The printing press as an agent of change: communications and cultural transformations in early modern Europe* (New York: Cambridge University Press, 1979).

⁹ Trevor Pinch and Bijker Wiebe, “The Social Construction of Facts and Artefacts: Or How the Sociology of Science and the Sociology of Technology Might Benefit Each Other,” *Social Studies of Science* 14 (August 1984): 43.

¹⁰ James R. Beniger, *The control revolution: technological and economic origins of the information society* (Cambridge, MA: Harvard University Press, 1986).

¹¹ Rich Ling, “Chapter 1: What Would Durkheim Have Thought? Living the Information Society in Asia,” in *Living the Information Society* (Institute of Southeast Asian Studies, 2009), 1-23.

for social prestige, and of course for social contact.¹² One farmer, when interviewed, said that he would like to have a mobile phone. When asked whom he would call, seeing that he had no phone in his hut, he admitted: no one—the phone was for status.¹³

The task-oriented uses are easier to observe. A commonly envisaged use of the mobile phone is to obtain market information. Jensen's well-known research demonstrated the economic value of a mobile phone in the hands of fishermen in south India where they were able to get better prices for their fish as they knew which port to head for after their catch and thereby reduced wastage and increased their income.¹⁴

Unlike the fixed-line telephone, which brought telecommunications to the workplace and residence, the mobile phone is portable, bringing communications links into the hands of unprecedented numbers of individuals.¹⁵ Mobility and immediate access have been identified as two unique gratifications for mobile phone use.¹⁶ Consistently, the insights generated from uses and gratifications research concerning telephony suggest that the mobile phone represents a hybrid medium. The mobile phone may be viewed as "a placeless place,"¹⁷ "magic in the air,"¹⁸ and "an extension of the body,"¹⁹ a technology embraced by billions the world over as part of their lives.²⁰

Because of the mobile phone's ubiquity, it is not easy to tease out its impact on society. One way therefore is to study a situation where the mobile phone is suddenly made unavailable. The situation would be analogous to two

¹² Wei Ran, "From Luxury to Utility: A Longitudinal Analysis of Cell Phone Laggards," *Journalism & Mass Communication Quarterly* 78, no. 4 (2001): 702-719; Wei Ran, "Lifestyles and New Media: Adoption and Use of Wireless Communication Technologies in China," *New Media & Society* 8, no. 6 (2006): 991-1008; Wei Ran, "Motivations for Using the Mobile Phone for Mass Communications and Entertainment," *Telematics and Informatics* 25, no. 1 (2008): 36-46; Letizia Caronia, "Mobile Culture: An Ethnography of Cellular Phone Uses in Teenagers' Everyday Life," *Convergence* 11 (3): 96-103; Enrico Menduni, "Petty Officers of the Political Fleet: The Impact of Personal Mobile Communications Technologies on Communicative Practices of Italian Politician and the Transformations of the Public Sphere," *Convergence* 11 (2): 88-101; Oscar Peters and Somaya ben Allouch, "Always Connected: A Longitudinal Field Study of Mobile Communication," *Telematics and Informatics* 22, no. 3 (2005): 239-56.

¹³ Farmer, interview by authors, personal interview, Toli Kola Bridge, March 2007.

¹⁴ Robert Jensen, "The Digital Provide: Information (Technology), Market Performance, and Welfare in the South Indian Fisheries Sector," *Quarterly Journal of Economics*, 122 (August 2007): 879-924.

¹⁵ Sadie Plant, "On the Mobile: The Effects of Mobile Telephones on Social and Individual Life," (1999) see <http://classes.dma.ucla.edu/Winter03/104/docs/splant.pdf>, accessed 1 September 2011.

¹⁶ Louis Leung and Ran Wei, "More than Just Talk on the Move: Uses and Gratifications of Cellular Phone," *Journalism and Mass Communication Quarterly* 77, no. 2 (2000): 308-320.

¹⁷ Drew Hemment, "The Mobile Effect," *Convergence* 11, no. 2 (2005): 32-39.

¹⁸ James E. Katz, *Mobile Communication and the Transformation of Social Life: Magic in the Air* (New Brunswick: Transaction Publishers, 2006).

¹⁹ Anthony M. Townsend, "Mobile Communications in the Twenty-First Century City," in *Wireless World: Social and Interactional Aspects of the Mobile Age*, eds. Barry Brown, Nicola Green and Richard Harper (London: Springer, 2002).

²⁰ James E. Katz, *Mobile Communication and the Transformation of Social Life: Magic in the Air* (New Brunswick: Transaction Publishers, 2006).

incidents in New York City when the newspaper and the residential telephone line were suddenly not available for several days. In 1945, newspaper delivery drivers went on a 17-day strike in New York City. Suddenly, the city was without newspapers. New Yorkers reported that they felt “lost,” “isolated” and insecure because the daily ritual of reading the newspaper had been disrupted.²¹ These sentiments were also expressed by those New Yorkers who lost the use of their residential telephone line for 23 days in February 1975 because of a fire in a telecommunication exchange. Those interviewed also reported both making and receiving more visits and consuming more media. Those who said that they were more reliant on the telephone said that they felt more in control when the service was restored. One significant conclusion of the authors was that the telephone afforded its users “symbolic proximity.”²² That is, the service gave its users the sense that they could connect with others when they wanted to, which has been described as “permanent accessibility.”²³ Such connection and access are akin to the current view of social networks, the best example being Facebook, where users can be connected “permanently” in slivers of time.

Keeping the above findings in mind, the present study aimed to address the following questions:

- When the mobile phone was shut down, what was the impact at both individual and societal levels? How did the Maoist insurgents or the seven political parties communicate with each other and organize themselves? This question investigates the extent to which mobile communications have changed the life of the Nepalese in all its spheres—economic, political, social, cultural, etc.
- Which aspect of daily Nepalese life was most affected by the shutdown in mobile communications? How did the average Nepalese adapt? This research question investigates the dominant use of the mobile phone for the respective interviewees. It also addresses the question of how those affected attempted work-around solutions.

Method

Three regions of Nepal that are taken by the Nepalese as representative of the country were selected for interviews: the capital city of Kathmandu, which

²¹ Bernard Berelson, “What ‘Missing the Newspaper’ Means,” *Communication Research* (1949): 111-129.

²² Alan H. Wurtzel and Colin Turner, “What Missing the Telephone Means,” *Journal of Communication* 27 (1977): 48-57.

²³ C. Lipcoppe, “‘Connected’ presence: the emergence of a new repertoire for managing social relationships in a changing communication technoscape,” *Environment and Planning D: Society and Space* 22 (2004): 135-56, see <http://www.envplan.com/abstract.cgi?id=d323ti>; Mariek Vanden Abeele and Keith Roe, “Measuring instant message: chatting versus being signed in,” paper presented at the Annual Conference of the International Communication Association, Chicago, 21-25 May 2009, see <https://lirias.kuleuven.be/handle/123456789/248666>.

is the most economically developed, the least developed part of Nepal in the west called Nepalgunj and its adjacent towns of Surket and the Dang Valley, and the tourist centre of Pokhara.

This study used interviews of 45 to 60 minutes focused around a few key questions. Among those interviewed were politicians, including the prime minister, business owners, journalists, as well as officers from the military and police. In Kathmandu, among the key interviewees were the Maoist spokesperson and the managing director of Nepal Telecom.

In rural Nepalgunj, prominent interviewees were the leaders of the Nepalgunj Chamber of Commerce, the acting head of the Nepalgunj Medical College, and a landlord who was a relation of the king. The researchers managed to obtain an interview with the then Maoist supreme commander Prachanda in Dang Valley, a three-hour drive from Nepalgunj. At Surkhet, another urban centre three hours from Nepalgunj, the researchers could not interview leaders as much of the town was away at a Maoist rally. A farmer, two operators of the public communication office (PCO), a bookstore owner, and the wife of a civil servant were interviewed instead.²⁴

At the tourist lakeside resort of Pokhara, among the more prominent interviewees were three leaders from the Pokhara Chamber of Commerce, a cardiologist, the chairman of the Pokhara Taxi-Owners' Association and a hotel owner who was vice-president of the Pokhara Hotel Association.

Because of the political tension during the time that the researchers visited, some of those approached for interviews were hesitant to speak. Two high-ranking security personnel who were interviewed requested anonymity. They made themselves available only on account of having known the second author. Again, because of the political situation, even among those who were interviewed, some data were suspect. In such instances, data had to be triangulated. For example, only one interviewee said that Maoist activities spiked immediately after the shutdown in communications. It was a claim that was counter-intuitive and unsupported by any other respondent and so was rejected by the authors.

Context

The mountains of Nepal, with views that draw trekkers, mountaineers and other tourists from all over the world, are the reason communication is difficult in the landlocked country. So-called mountain highways—narrow one-and-a-half-lane winding roads—link the urban centres. The population is spread across the country. The largest city, Kathmandu, has a population of 2 million out of a total population of 25 million. Much of the population

²⁴ This study was limited by the difficulty in access to data. Telecommunication traffic data were promised but not given. Further, the window in time that the researchers were able to use to gain access to Nepal closed a few months later: mass protests, some of which were violent, broke out all over Nepal and the king was forced to abdicate.

subsists as farmers, living off relatively small plots of terraces carved into rugged mountainsides. This means that many parts of Nepal are accessible only on foot. Sometimes, it can take three to four days for a villager to reach the nearest bus-stop.

Telecommunication links are therefore all the more valuable, especially as a substitution for transportation where possible. At the time of the shutdown in mobile phone service in early 2005, the mobile phone service was being gradually rolled out and Nepal had a mobile phone penetration of just 1 percent.²⁵ More well-to-do farmers and businessmen were using their own version of the mobile phone. Using landline connections, high-powered extended range cordless phones that could go as far as 200 to 300 kilometres, they jerry-rigged antennae so that they could achieve some degree of mobility. These high-powered handsets, however, need line-of-sight reception to work. During the 1 February communication shutdown, security personnel took down these antennae. The military considered jamming telecommunications signals on a selective basis, but the jammers work on line of sight and the mountainous terrain made the idea all but unworkable.²⁶

Reasons for the Shutdown

Officially, the shutdown in communication was to thwart the terrorist activities of Maoist insurgency groups in western Nepal because some of the roadside bombs that killed police and military personnel had been activated by mobile phones.²⁷ Even before the shutdown, security personnel would shut down the mobile phone service for two hours in whichever area the king visited to thwart such attacks.

Captured Maoists invariably had a mobile phone on them. Tracing the mobile phone numbers led only to pre-paid users, who were not registered and so had complete anonymity. According to the managing director of Nepal Telecom, the charges for the pre-paid service probably made Nepal one of the cheapest places to own a mobile phone: incoming calls, including sms (short message service), are free and so with careful use of sms and limited outgoing calls, a card of US\$10 could last six months before it expired. The shutdown in mobile phone service was intended to stop anonymous pre-paid users; when the service resumed, all users—including pre-paid ones—had to register.

When it was pointed out that the Maoist insurgents did not trust the mobile phone because the service could be easily intercepted and that the Maoists

²⁵ Min Bajracharya, "Mero Goes to Metros: Nepal's First GSM Provider Prepares to Take Mobiles Nationwide," *Nepali Times*, 14-20 July 2006.

²⁶ Colonel Unidentified (interviewee wanted to remain anonymous for the purposes of working with the Maoists), interview by authors, Nepal, 2 March 2007.

²⁷ Colonel Unidentified (interviewee wanted to remain anonymous for the purposes of working with the Maoists), interview by authors, Nepal, 2 March 2007.

had their own communication network, a security official offered another reason for the shutdown. He said that the army and police were being mobilized on two fronts—against the Maoist insurgency principally in the rural west but also to keep law and order in urban centres where seven political parties were confronting each other on the streets. These political parties were using the mobile phone to organize themselves. So the shutdown in mobile phone service was to keep the seven political parties off the streets and thus enable the army and police to concentrate on the Maoists.²⁸

Did the shutdown of service have to be so long? The story gets interesting. Before the shutdown, mobile phone penetration in Nepal was increasing steadily. So much so that the then telecommunications monopoly Nepal Telecommunications was rolling out a parallel CDMA network. When the shutdown occurred, senior Nepal Telecom managers were able to use the CDMA network. Within the first week, however, ministers in Nepal knew of the parallel CDMA network and managed to get their hands on a handset. In effect, these senior government officials did not feel the effects of the shutdown in mobile phone service.²⁹ This lack of identification may have contributed to the duration of the shutdown being what was universally acknowledged in Nepal as excessive.

The Shutdown and the Restoration

Those who saw the lines being shut down said that the army appeared to have a well-designed plan. The manager of an ISP said that army officers turned up and instead of showing documentation said, “We are the papers,” and turned off the VSAT satellite link. Over his protests, they then began pulling out wires to ensure that the lights on his other equipment went out. He said that this meant that his staff could not do maintenance on the equipment even though the communications link had been shut down.³⁰ In other parts of Nepal, home-made towers for extended-range cordless phones that could go as far as 200 to 300 kilometres in line of sight were pulled down by the army.

But the strategy against the Maoists apparently only worked for two weeks. Maoist communications were disrupted, but they quickly recovered by bringing satellite phones from Singapore to supplement the four that had been tested earlier.³¹ In effect, the Maoists had the most advanced telecommunications

²⁸ Colonel Unidentified (interviewee wanted to remain anonymous for the purposes of working with the Maoists), interview by authors, Nepal, 2 March 2007.

²⁹ Sugat Kansakar, managing director, Nepal Telecommunications, interview by authors, personal interview, Nepal, 25 February 2007.

³⁰ Navin Joshi, chairman, World Distribution Nepal Pvt. Ltd., interview by authors, personal interview, Kathmandu, Nepal, 24 February 2007.

³¹ Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, personal interview, Kathmandu, Nepal, 23 February 2007; Prachanda (aka Pushpa Kamal Dahal), chairman, Communist Party of Nepal then, later prime minister of Nepal, interview by authors, personal interview, Dang Valley, Nepal, 26 February 2007.

network in Nepal. United Nations' offices and embassies were able to maintain their external communication links. Some used the INMARSAT link. Internal communications within Nepal were also affected,³² and the all-encompassing shutdown in communication meant that the Nepali economy was brought to its knees. Thus two days after the shutdown, landline service was restored for an hour the first day, two hours the second day, increasing by an hour each day till full service was restored.

The availability of landlines, however, also meant that the communication network of the Maoists that relied on the landline could be used again. Dotted all over Nepal are public communication offices (PCOs) that are, in essence, staffed privatized telephone booths. Besides telephone calls, these PCOs offer ancillary services such as faxes, phone card sales and, often, Internet access. According to the senior police officer interviewed, these PCOs were sympathetic to the Maoists, if not outright supporters.³³ It was not possible to verify the information, but a PCO operator asserted that Maoist activities spiked immediately after the shutdown.

There was widespread speculation that there was a commercial reason why the shutdown in mobile phone service lasted longer than it should have. The king's son-in-law, Raj Bahadur Singh, was promoting a new mobile phone service company, Mero Mobile, which was entering the market. The continuing stoppage of service would have weakened the incumbent services while it gave the new entrant time to roll out infrastructure.³⁴ This view was widespread among the interviewees.

The restoration of the mobile service took two phases, first after 50 days on 22 March for the post-paid subscription service and then 88 days later on 29 April for the pre-paid subscription service. There was apparently some confusion as to where the order for restoration should come from, the Ministry of Defence or the military. Nepal Telecommunications asked for compensation of NRs 500M (about US\$7M) although the cost of the shutdown was estimated at NRs 3 billion (US\$41M) for the 88 days. All users had to register afresh. Subscribers had to be approved by the military, which had a long blacklist of suspects. Pre-paid service users had to be similarly approved before they could be registered. When it was announced that the pre-paid subscription service would be restored, a queue started at 4 am, with 4,000 lining up for the 2,000 pre-paid cards.³⁵

³² Navin Joshi, chairman, World Distribution Nepal Pvt. Ltd., interview by authors, personal interview, Kathmandu, Nepal, 24 February 2007.

³³ Police Officer, interview by authors, personal interview, Kathmandu, Nepal, 25 February 2007.

³⁴ *The Times of India*, "Nepal Begins Blackberry Service," 18 August 2010, see http://articles.timesofindia.indiatimes.com/2010-08-18/south-asia/28321220_1_blackberry-services-spice-nepal-mero-mobile, accessed 1 September 2011.

³⁵ Sugat Kansakar, managing director, Nepal Telecommunications, interview by authors, personal interview, Nepal, 25 February 2007.

Results: Security

Maoist insurgency slowed all over Nepal for the first two weeks. A senior military officer said that military operations against the Maoists were successful for the first 10 days. He observed that the shutdown in telecommunications was intended to make it difficult for the Maoists to mobilize, and was also aimed at cutting off international support.³⁶ The Maoist spokesperson in Kathmandu said that logistics, and in particular the transport of food and medicine, were most affected. He said that Maoists used high-powered walkie-talkies that had a range of 10 to 15 kilometres.³⁷ But in the rural areas, which were difficult to police in any case, activity picked up after that. These areas were not as reliant on the mobile phone as the urban areas; they apparently did not trust the mobile phone service in any case, suspecting that their calls might be tapped. After the first weeks, the arrival of 21 satellite phones from Singapore—to make a total of 25 sets—enabled the Maoists to restore much of their communication network.³⁸ The Maoists were familiar with satellite phones. Mountain climbers used them and in fact there were visitors who had them when the mobile phone service was shut down. These satellite phones, however, were not allowed to be used. The Maoists had experimented with four satellite phones in 2004. With the 25 satellite phones to cover the 75 districts of Nepal, encoded messages were passed regionally from sat phone to sat phone and then passed on locally by courier. The Maoist spokesperson estimated that by the third week, there was only a 10 to 15 percent decline in their activities. He said that the Maoists could not be over-reliant on new technologies.³⁹

One newsmagazine editor said that drug dealing did decline markedly, but added that it was not possible to credit the shutdown in telecommunications entirely for the drop; the attendant tighter security in the country may have contributed more to the decline.⁴⁰

Results: Business

Businesses said they were most affected in the first day as they were caught unawares. By one estimate, even in the small rural town of Nepalgunj, 75 percent of business transactions were affected when all telecommunications

³⁶ Military Officer, interview by authors, Nepal, 26 February 2007.

³⁷ Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, personal interview, Kathmandu, Nepal, 23 February 2007.

³⁸ Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, personal interview, Kathmandu, Nepal, 23 February 2007; Prachanda (aka Pushpa Kamal Dahal), chairman, Communist Party of Nepal then, later prime minister of Nepal, interview by authors, Dang Valley, Nepal, 26 February 2007.

³⁹ Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, Kathmandu, Nepal, 23 February 2007.

⁴⁰ Nawa Samir, editor, interview by authors, Kathmandu, Nepal, 24 February 2007.

were shut down.⁴¹ On Day 2 of the shutdown, business owners worked on alternative plans. By the end of Day 2, they were able to function, though in a much less efficient manner. This inefficiency remained one month after the shutdown.⁴²

One landlord gave an example of how inefficient his business became. When an order arrived, he would check with the bank if the payment had been paid. With telecommunications, it was merely a call to check. Without telecommunications, this meant that he had to send his driver to the bank to check if the payment had been made. This was a clear demonstration of the transport-substitution effect of telecommunications. Because more of such checks had to be made, he ended up having to hire more workers to run around to deliver and receive messages. This meant a lot more work, with more workers, at the same time as the business experienced a drop in orders.⁴³

Hotels reported a significant drop in business as bookings could not be confirmed via telecommunications; in a number of cases, this inability to confirm the bookings led directly to cancellations. The owner of the five-star Barahi Hotel in Pokhara reported that he had to lay off 20 percent of his staff, contain expenses, and sell land to stay afloat. In his case, when the landline phone service was restored for an hour on 3 February 2005, he set up a system where bookings were faxed to the Indian border and then physically carried to Pokhara.⁴⁴ With the drop in tourism, some 10 percent of owners converted their hotels to offices. In Kathmandu, the Sherpa Hotel, near the Royal Palace, was converted into an office block.

Many business owners complained that they had to sit in the office to respond to queries instead of going out to get business or to work in the field. For goods where prices fluctuate, owners considered themselves to have suffered loss in opportunity. One business owner said, "If the price is \$3.40 in the morning and you did not have your phone with you and in the afternoon it is \$3.50, that can also be considered a loss."⁴⁵

Surprising to the researchers were the comments that small businesses were the ones most affected. In hindsight, perhaps it should not have been as surprising because new business practices had developed around the mobile phone. The owners of small businesses, such as tradecraft, had substituted the mobile phone for their office; the phone had become their "placeless place." Without that place, their business could not operate. Some traders, especially those dealing with daily produce, shut down as they could not move

⁴¹ Deepak Shreshta, president, Pokhara Chamber of Commerce, interview by authors, Pokhara, Nepal, March 2007.

⁴² Satish Chandra Agrawal, spokesperson, Nepalgunj Chamber of Commerce, interview by authors, Nepal, 27 February 2007.

⁴³ Michael K., interview by authors, Nepalgunj, 27 February 2007.

⁴⁴ Biplab Paudel, executive director, Hotel Barahi, interview by authors, Pokhara, Nepal, March 2007.

⁴⁵ Satish Chandra Agrawal, spokesperson, Nepalgunj Chamber of Commerce, interview by authors, Nepalgunj, 27 February 2007.

their goods.⁴⁶ The businesses most affected were those that had adapted their business most to the mobile phone. These were small businesses such as electricians, plumbers, transport service operators and home delivery services.

Even those without a mobile phone suffered during the shutdown. One housewife who was accustomed to having her goods delivered to her home remarked: "It's convenient when others have the mobile."⁴⁷ Without the flow of business through the phone, their businesses virtually dried up. Business outsourcing companies were also affected; one or two companies that had moved into Kathmandu to handle outsourced work relocated out of Nepal.⁴⁸

Also affected were emergency and health services. Although there were anecdotal reports of deaths from inability to contact the emergency medical service, no hard data were available, except the report of a cardiologist in Pokhara. He had given his mobile number to patients' families so that should a patient suffer certain symptoms, family members were to call him for instructions. In most cases, the instructions would be to give the patient certain medication. Without that lifeline, he said that four of his patients died in the 88 days.⁴⁹

Results: Information

Media companies were affected. Journalists could not call their offices to file stories. This led to fewer news pages. Advertisers stopped advertising because of the economic slowdown.⁵⁰ The Nepalese developed a culture of dropping into homes to catch up on news, particularly the homes of journalists and editors. One editor remarked, "There was a lot of chatting on the streets."⁵¹

The common sentiment was that the lack of information alienated the populace and made them angry. Rural villagers in particular felt alienated as they could not call out. On the other hand, because many Nepalese work outside of Nepal, overseas workers could not contact their families and loved ones. In short, it led to alarm and anxiety for large segments of the population. According to the Maoist spokesperson, it drew the populace closer to them. He said: "Those who were not close to us drew close to us; those who were already close to us became even closer. It bonded people together."⁵²

The Nepalese prime minister, interviewed over the phone from Pokhara, admitted as much: "There was very limited success in the security operations.

⁴⁶ Satish Chandra Agrawal, spokesperson, Nepalgunj Chamber of Commerce, interview by authors, Nepalgunj, 27 February 2007.

⁴⁷ Komala, homemaker, interview by authors, Surkhet, 27 February 2007.

⁴⁸ Navin Joshi, chairman, World Distribution Nepal Pvt. Ltd., interview by authors, personal interview, Kathmandu, Nepal, 24 February 2007.

⁴⁹ Narayan Gautam, cardiologist, interview by authors, Pokhara, Nepal, March 2007.

⁵⁰ Kunda Dixit, editor, *Nepal Times*, interview by authors, Nepal, March 2007.

⁵¹ Kunda Dixit, editor, *Nepal Times*, interview by authors, Nepal, March 2007.

⁵² Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, Kathmandu, Nepal, 23 February 2007.

In the long term, it was more harmful. It hurt the economy; it alienated the people. It tilted the balance so that those who were sitting on the fence became angry with and went against the king (who had ordered the communications shutdown)."

Significance

Were there any benefits from the shutdown in mobile phone service? A handful of those interviewed said that they were a little glad that the mobile phone was off. One of them was a businessman, whose mobile phone rang several times during the 30-minute interview. Another was a doctor who now has three mobile phones that he says he passes to his assistants. He said, "Mostly nuisance calls. Like, when to take my medicine?"⁵³

Undoubtedly, the shutdown of the mobile phone service had a major impact on the economic, social and political life in Nepal. That sense of loss and of insecurity felt by New Yorkers when the newspapers and residential telephone service were not available was also felt by the Nepalese interviewed. To a great extent, the mobile phone may be seen as a personal device, one that is owned by an individual although in reality, one needs a network to use it on. This personal possession aspect may be seen in how the device is carried close to the body every day⁵⁴ and how users, especially the young, modify and adapt it for fashion and social status.⁵⁵ It may be argued therefore that the Nepalese were angry because their "personal property" was taken away. Indeed, the Maoist spokesperson said as much: "The mobile phone is a civil right that should not be interfered with." He added that he hoped to get a phone to every Nepalese.⁵⁶

The authors, however, suggest that the power of the mobile phone goes beyond individual use. The mobile phone is a device for accessing one's social network. One of the purposes of the military for shutting down the network was to deny the Maoists an easy means to mobilize. It was the cutting off of the users' social networks that was the main reason for the anger. Opposition political parties found it harder to mobilize. The public anger boiled over in the resort city of Pokhara, where there were street protests and scores were injured when the police stopped them. As one businessman observed: "People don't forget this kind of stuff."⁵⁷

⁵³ Narayan Gautam, cardiologist, interview by authors, Pokhara, Nepal, March 2007.

⁵⁴ Valerie Feldmann, *Leveraging Mobile Media: Cross-Media Strategy and Innovation Policy for Mobile Media Communication* (New York: Physic-Verlag, 2005).

⁵⁵ Oscar Peters, and Somaya ben Allouch, "Always Connected: A Longitudinal Field Study of Mobile Communication." *Telematics and Informatics* 22, no. 3 (2005): 239-56.

⁵⁶ Krishna Bahadur Mahara, spokesperson, Communist Party of Nepal, interview by authors, Kathmandu, Nepal, 23 February 2007.

⁵⁷ Navin Joshi, chairman, World Distribution Nepal Pvt. Ltd., interview by authors, Kathmandu, Nepal, 24 February 2007.

The managing director of Nepal Telecommunications said the shutdown in phone service was ironic. He said that it was thought that telecommunications created the movement for democracy in 1990 as it helped to disseminate information fast. Nepal Telecom received congratulatory messages for telecommunications use that helped bring democracy to Nepal. Describing the shutdown as “self-defeating,” he said it led to a crisis of self-confidence that was counter-productive.⁵⁸ In that sense, the shutdown in mobile telephone services actually affected the king’s security for the worse. Maoists said they sabotaged a telecommunications tower once in 2003. The resentment of the public against them was so strong that they never did it again.⁵⁹

A recent paper modeling the Egyptian uprising of 2011 suggests that the disruption in the Internet and mobile communications there had the opposite effect of what was desired by the government. Instead of dampening the revolution, the disruption exacerbated the unrest in three ways: first, it made those who were previously apolitical more aware of the politics of the country; second, it forced more face-to-face communication; and third, it decentralized the uprising so that it became harder to control.⁶⁰

Of the above three outcomes, this study affirms the first two: the average Nepalese was more aware of the politics of the country because the shutdown affected many of them. And there was certainly more face-to-face communication, with more “chatter on the streets” as Nepalese exchanged information with each other. The third outcome in the Egyptian uprising was not relevant to the Nepali case.

At a more academic level, one question to ponder is that of the nature of the interaction between technology and society advanced by Ling:⁶¹ Which affects which? On the one hand, the Nepali case makes a strong argument in favour of technological determinism. The cut in the use of a technology that the society had been heavily reliant on disrupted the lives of the citizenry, angering them and ultimately undermining the support of the king. So, the argument might go, it could be said that the technology affected society.

On the other hand, how the authorities in Nepal acted and reacted suggests that a social constructivist perspective may be equally valid, if not even more so. It was the authorities who decided on the nature and duration of the communication cuts. For example, had the cut in mobile communication been shorter, the disruption of lives, and the accompanying stoking of public anger, may have been minimized. Social constructivism, however, has been

⁵⁸ Sugat Kansakar, managing director, Nepal Telecommunications, interview by authors, Nepal, 25 February 2007.

⁵⁹ Prachanda (aka Pushpa Kamal Dahal), chairman, Communist Party of Nepal then, later prime minister of Nepal, interview by authors, Dang Valley, Nepal, 26 February 2007.

⁶⁰ Navid Hassanpour, “Media Disruption Exacerbates Revolutionary Unrest: Evidence from Mubarak’s Natural Experiment,” paper presented at the APSA 2011 Annual Meeting, Seattle, Washington, September 1–4, 2011, see <http://ssrn.com/abstract=1903351>, accessed 1 September 2011.

⁶¹ Rich Ling, “What Would Durkheim Have Thought?” in *Living the Information Society in Asia* (Institute of Southeast Asian Studies, 2009), 1–23.

criticized for being unhelpful in precisely such difficult situations in the place of technology in human affairs because it does not take an evaluative stance on the moral or political principles that may be involved in the use of technology.⁶²

The outcome suggests that Ling may be right, that the verdict does not favour one perspective over the other but that there is an interaction between technology and society. The advantage of adopting the interaction perspective is that it avoids the either-or pitfall and offers a more holistic view. To that extent, it offers a more accurate picture of the impact of technology on society and vice-versa. The perspective, however, at best offers a description of how technology and society may have interacted rather than a prescription for how they should interact. In difficult situations where one looks for some prediction, the perspective is of little help.

Conclusion

The shutdown of the mobile phone service in Nepal was successful in achieving its security objective for the first two weeks. It took that time for the insurgents to develop their own transport-telecommunication substitution as well as acquire 24 satellite phones. But by maintaining the shutdown for too long, the king created a sense of insecurity and anxiety among the populace who apparently never forgave him for it. It probably undermined his support and contributed to the public anger that forced him to step down.

Meanwhile, the mobile blackout, by depriving Nepal of business opportunities and communication convenience, affected the economy as well as social spheres. Furthermore, the lengthy blackout provoked complaints and alienated the public. It also led to speculation that the king was hobbling the incumbent Nepal Telecommunications in order to facilitate the rollout of a new entrant in which a king's relation was an investor.

Given the history of the impact of mobile telecommunications in Nepal, it was unlikely that the future Maoist governments would resort to a blackout. The Maoist spokesperson said that they had learnt not to be too dependent on new technologies. Though he wanted every Nepalese to have a mobile phone, he said that Maoists would still keep their old communications networks alive.

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⁶² Langdon Winner, "Upon Opening the Black Box and Finding It Empty: Social Constructivism and the Philosophy of Technology," *Science, Technology, & Human Values* 18, no. 3 (Summer 1993): 362-378.