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Toby and ‘the Mobile System’: Apocalypse and Salvation in Papua New Guinea’s Wireless Network

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Introduction

The rapid spread of mobile phones is one of the most striking developments of the last decade in the Global South, where the number of handsets in use outstripped those in the developed world some time ago (Ling and Horst 2011). Pacific nations were relatively late in joining this global surge, but recent growth has been as dramatic there as elsewhere and has attracted the interest of anthropologists and others. There is now an emerging literature examining, for example, the impact of mobile phone use on gender relations, in service delivery and in the various kinds of transactions and links that mobile telephony enables or fosters (see, for example, Gershon and Bell 2013; Marshall and Notley 2014; Lipset, Chapter 1).

Much of what we have come to know about mobile phones in Papua New Guinea has been based on an analysis of patterns of use and their impact on social relations. In this chapter, however, I wish to look at local perceptions of the broader context of mobile phone technology, telecommunications companies and the state. When people in Papua

New Guinea talk generally about the advent of mobile phones, they often speak of ‘the mobile system’ (*mobail sistem*), a usage that often carries with it an ambivalent sense of larger changes underway. I approach this here through the lens of one man’s vision of the dangers that the mobile system offers – his version of the ‘big picture’ – while juxtaposing this view with equally powerful experiences of mobile phone use in his life. Before doing so, however, I want to sketch a brief history of the recent growth of Papua New Guinea’s mobile phone market.

Digicel enters the PNG Market

The growth of mobile telephony in the Pacific follows World Trade Organization–driven regulatory and financial liberalisation that forced state telecommunications monopolies to compete with new corporate players, who often established an early dominance in the market (Duncan 2010; Network Strategies 2013). The most prominent such operator is Digicel, a private telecoms corporation based in Jamaica (with Irish roots).¹ Digicel has made a specialty of expanding into state-run island markets that were too small to attract the attention of larger transnational corporations, and Papua New Guinea offered an outstanding opportunity in this niche (Condon 2008). Describing Papua New Guinea’s government-owned Telikom system (the parent of Bemobile) at the time, ‘Ofa says:

As is the case with many state owned entities, the infrastructure had deteriorated over the years as the result of ineffective management, constant political interference, tariffs not being cost-reflective, massive underinvestment and lack of incentives to improve services or roll out network. The infrastructure was outdated, unreliable, and network coverage was low. (2010: 74)

1 Digicel Papua New Guinea is a subsidiary of the parent company, Digicel, currently operating in 31 markets in the Caribbean, Central America and Asia-Pacific (Digicel Group Limited n.d.; Horst and Miller 2006; Foster, Chapter 6). In 2014, Bemobile and Vodafone went into partnership to form *bmobile-vodafone* but it is still too early to assess the impact of this merger on the PNG market.

It's perhaps no surprise that Digicel faced state opposition in 2007 on the eve of its entry into the PNG market – despite the fact that it had won a spectrum-licence auction a year earlier. The minister for telecommunications attempted to revoke Digicel's licence in one of a series of illegal moves to protect the state-owned service provider, Bemobile – ostensibly to allow it time to rehabilitate its infrastructure in order to compete effectively against the newcomer ('Ofa 2010; *PNG Post-Courier* 2007; Radio New Zealand 2007).

The ploy was promptly overturned in court and Digicel lost no time in outcompeting Bemobile through strategies that the company developed earlier in the Caribbean (Condon 2008; Narokobi 2007; Horst and Miller 2006). Digicel went head-to-head with Bemobile for the urban business market and mounted an aggressive advertising campaign (see Horst, Chapter 4), but the key to its plan of attack was to provide mobile phone service to the large majority of relatively poor Papua New Guineans. Cheap handsets (for prices reportedly as low as US\$6), low pay-as-you-go rates and special marketing gambits – such as offering free SIM cards or promotions in which customers could trade in their Bemobile units for new Digicel phones at no cost – initially served to secure Digicel's PNG foothold. The number of mobile phone subscribers shot up immediately and some observers credit this expansion with a 0.7 per cent GDP increase the following year (Logan 2012: 1).

Most of Papua New Guinea's population is rural, and Digicel introduced novel features providing a limited number of free 'credit me' or 'out of credit' calls that users could make to other Digicel customers, who could then transfer credits to friends over the phone (see Andersen 2013; Foster, Chapter 6). This innovation was crucial because it inaugurated an informal, flexible and low-cost remittance mechanism that allowed Digicel to leverage the incomes of urban subscribers to subsidise rural friends and relatives at a cost of K0.30 per credit transfer. Rural coverage became profitable, and this helped fund Digicel's tower-building program, which outran Bemobile at a pace that its rival could not – or, at least, did not – match. In what its competitors termed a 'land grab', Digicel built a network of 130 towers in the first year of operation and, by 2015, had

a reported 1,088 towers across the country (Condon 2008; Kramer 2016).² Papua New Guinea's mobile phone market grew from roughly 300,000 in 2007 to about 3.4 million in 2014 (International Telecommunications Union (ITU) 2015a), and Digicel accounted for nearly all of this growth (Bruett and Firpo 2009). Estimates in recent years have put Digicel's market share at between 90 and 95 per cent.³

Digicel's expansion was breathtaking and mobiles went from being the prerogative of 'big shots' to something that even rural schoolchildren have. If not quite a revolution, the advent of accessible phones has been nearly so, and uptake has been enthusiastic. This enthusiasm, however, is often tempered with an uneasiness that is not always readily pinned down. Spontaneous remarks, letters to newspapers and sermons suggest misgivings about the phone's possibilities for fostering sexual immorality, spreading pornography or acting as a mechanism for the harassment of women (Sullivan 2010; Watson 2013; Andersen 2013; Lipset 2013; Jorgensen 2014; Kraemer 2015). To these may be added parents' and teachers' complaints that the phone impairs children's exam performance and the worry that phones could be conduits for sorcery (Bell 2011; see also Pacific Institute of Public Policy (PIPP) 2008:76) or used for criminal purposes. Taken together, these views reveal a surprising ambivalence about a device that most say they cannot do without.

2 It is difficult to find reliable accounts of the size and distribution of Bemobile's network in the early days of competition with Digicel, but reference to the environmental assessment report Bemobile submitted to the Asian Development Bank in its bid to secure funding for network expansion (Bemobile Ltd 2011) gives an idea. Bemobile's network consisted of 188 towers in 2011 – four years after Digicel launched its tower-building drive – and it was seeking support for an additional 300 towers over a two-year period. Significantly, this expansion was largely in urban areas and along highways, tacitly conceding more remote rural locations where Digicel had already established a presence.

3 A news report quotes a Digicel PNG executive saying that Digicel's market share was 96 per cent (Papua New Guinea Today 2015b). In 2011, Bemobile estimated that Digicel had over 80 per cent of the market (2011: 3), but the higher figure is consistent with unofficial industry estimates in 2012–13. As one source explained, the likelihood of another carrier wresting Digicel's share away with new tower construction is slim: profitability would depend on persuading enough Digicel subscribers to switch carriers to recoup high construction costs (compare bemobile's coverage map, www.bemobile.com.pg/NetworkCoverage). Horst (Chapter 4) makes a similar argument with regard to Digicel's problems in penetrating the Fijian market.

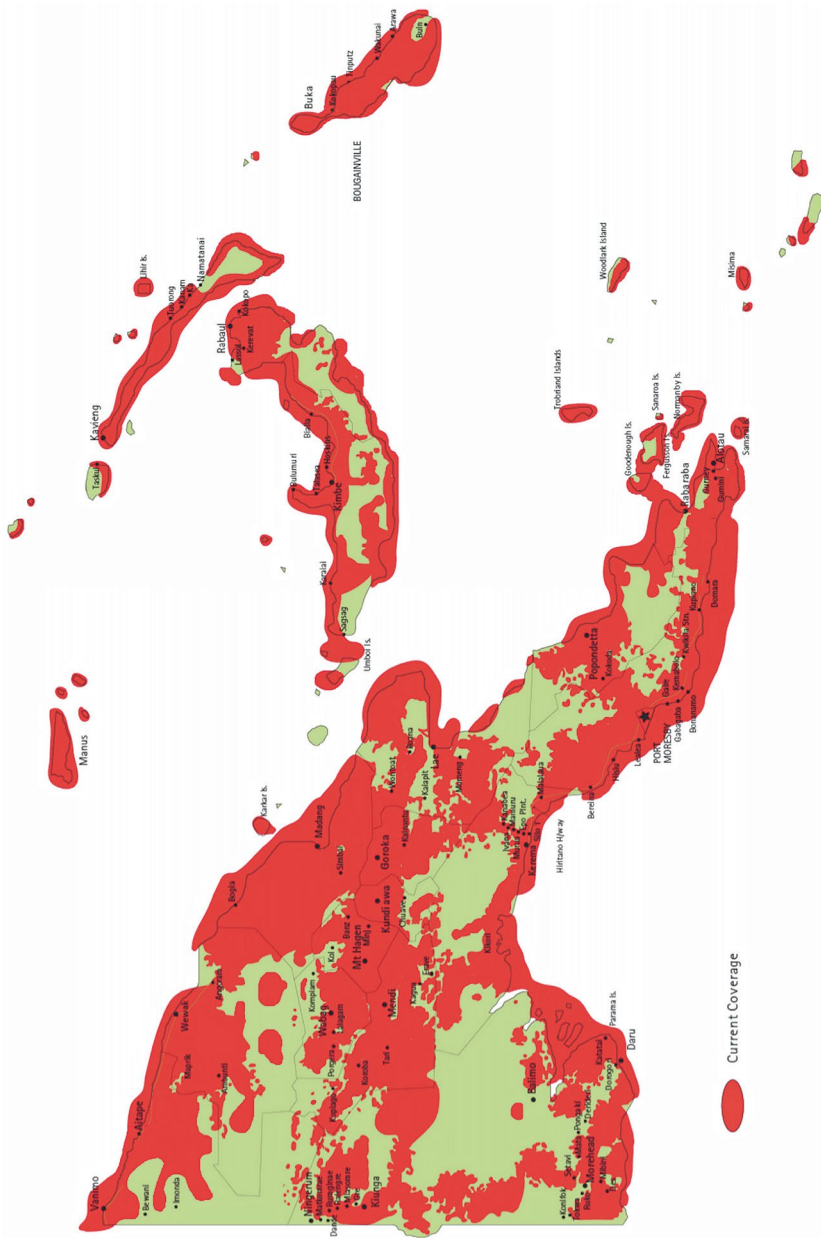


Figure 10. Digicel coverage map, 2015

Source: Digicel Group Limited

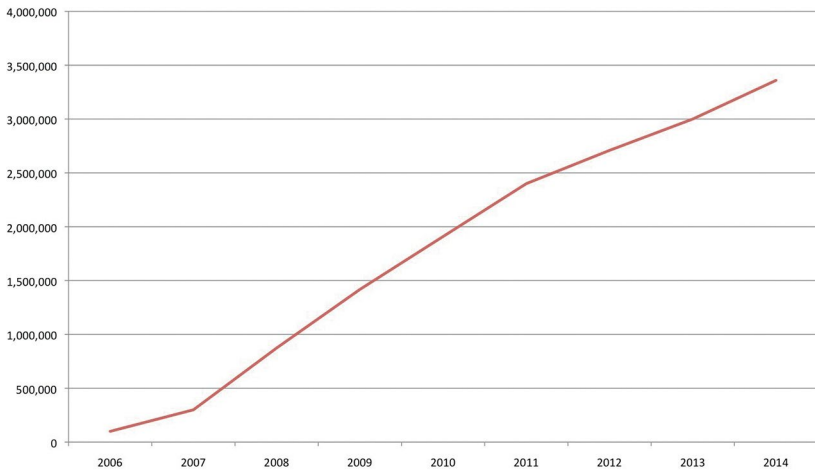


Figure 11. Growth in PNG mobile phone use, 2006–14

Source: ITU (2015)

Toby and the Mobile System

In addition to the specific qualms mentioned above, one sometimes hears that the mobile system is a source of danger in its own right. Some, for example, say that the phone has ‘come on a bad road’ and is the work of Satan. Here, anticipation contends with apprehension, which I explore through one man’s vision of the mobile system’s powers and dangers. Drawing upon biblical texts and certain features of state policy, he takes the spread of the mobile system and Digicel’s ascendancy as signs of the impending domination of Papua New Guinea by the Americans and Chinese as a prelude to an End Times apocalypse. In his view, this is a story with sinister overtones that is bound to end badly.

I first met Toby in 2014 in a village on the outskirts of Tabubil, a mining town in western Papua New Guinea. I told him that I had come to see what people made of mobiles and whether anything in their lives had changed as a result of their use. Toby, it turned out, was unexpectedly interested in just these sorts of questions. Toby was a migrant whose sister had married into the area and he had followed her there in search of work. He used to work on the docks in Lae, Papua New Guinea’s largest port, and there he saw many things, including Digicel’s arrival on the scene. Before Digicel, mobile phones were rare, but soon it seemed that nearly

everyone had them. At that time, they were fairly simple phones, but Toby noticed that some foreigners had phones that could do much more than just make calls or send texts.

One of these was shown to him by a Chinese crewman, who called Toby over and showed him a video on his phone of his wife and newborn son back in China. He went on to explain that soon one would be able to see people far away using these phones – not in videos, but *live*. Mobiles were very important and would change many things, but most people didn't understand this.



Figure 12. Digicel tower being completed, Telefomin

Source: Stan Tinamnok

In the Highlands near Mt Hagen, Toby explained, a Chinese engineer had been working on a tower that Digicel had just set up. He wanted his family at home to see what kind of work he did, so before he climbed up into the tower he opened his laptop and set it on the ground so that the webcam could send images of him back home. As he got to the top, he looked down and saw four locals converge on his laptop and pick it up, laughing. They were thieves, but the Chinese man began laughing in turn. The thieves asked why he was laughing, and he told them to go ahead and take it – it was rubbish, they were welcome to it. They had seen nothing yet – they could laugh now, but soon enough they would cry for their children. Digicel's towers were extending mobile phone coverage to

ever more remote areas of the country and, when the entire country was covered and no place was left out, then they would see. The Americans would be able to see where everyone was: if they wanted to get you, all they had to do was press a button and they could kill you. They could kill you anywhere, and there would be no place to hide. This was the ‘mobile system’.

As I later found out, Toby’s account was part of a larger vision of events in which Digicel’s entry into the PNG market was engineered by US agents who visited Michael Somare – the prime minister at the time – and threatened him in his parliamentary office. There he acquiesced to their demand that the mobile system be extended over Papua New Guinea. The proof of this is in Digicel’s rapid expansion and the fact that Digicel forced the government to ‘change policy’ and assign the number 7 as the initial digit of its SIM cards (ITU 2015b). This signifies that ‘you’re inside the system now’, and refers to Chapter 7 of the Book of Daniel, in which a dream of a ‘dragon’ and an ‘eagle’ foretells the roles of China and America in an apocalyptic future.⁴ These signs are underscored by the fact that Papua New Guinea’s new K100 banknote featured images of parliament on one side and a mobile phone tower on the other, alongside a passenger jet, a truck and a ‘submarine’.⁵ Toby concludes that:

All these are things the prophet Amos talked about: he said men will try to get on a ship, or in a car or airplane and go – but there’s no road for them to go. Our government said, ‘we’re the government and we signed this permission saying, United States, you’re free to go inside this money now’. Foreigners will think this is okay, but those of us who see this sign know and think: *sor!* The plane’s there, the ship’s there, but if you board the ship or the plane or get in a car, the Digicel tower will say, ‘okay – this is where he is’. And soldiers will get ships, planes, cars and find you – you won’t have any way to escape.

4 Daniel’s dream of Four Beasts is often said to prophesy a future apocalypse and the events of the Book of Revelation. Variants of this interpretation have been staples of certain Christian sects in North America and Papua New Guinea for some time (see End Time Ministries 2014).

5 Toby was technically wrong, since the note had been in circulation since 2005; the ‘submarine’ is actually an oil tanker (Kamit 2007; Moneypedia 2015).



Figure 13. PNG K100 note⁶

Source: Moneypedia.de

Toby and the Phone in Use

Despite this sinister picture of troubles to come, Toby was remarkably relaxed and upbeat about mobiles and their use. At any given time, he was likely to be using his phone to play video games or listen to FM radio or music that he had downloaded: Toby wearing his earphones was a familiar sight around the village. He was keen to keep up with the latest developments and he often sold a current phone in order to buy a more recent model. He was very proud of the stylish white handset with a touch screen that he was using when we met.

Toby's phone was useful to him in many more personal ways as well. He had come to Tabubil in the hope of finding a way to earn enough money to go back to Lae or to his wife's home village in order to establish a business raising chickens as 'table birds' for Papua New Guinea's frozen food industry. When I met him, he had been living there for over two years and his phone was his lifeline to his wife and to their young daughter back home. Toby also had a 'phone friend' – a young woman elsewhere in the country whose only connection with him was that they had established contact by an anonymous mobile phone call. While they had never met, Toby and his phone friend often shared intimate conversations late at night, when Digicel's rates were reduced.

⁶ The numbers in the figure refer to sectors of Papua New Guinea's national economy, such as cash crops, copra, fisheries, logging, oil, mining and telecommunications.

In all these ways, the mobile phone had become a part of Toby's everyday life, despite his apocalyptic vision of its ultimate significance. More importantly, this vision of the phone also existed side by side with a more powerful and intimate sense of the phone's meaning: it had saved his life.

Despite his best efforts, Toby had not been able to find work and eked out a living through a combination of doing odd jobs for his brother-in-law and operating on the fringes of Tabubil's informal economy. He made occasional forays as a gold buyer purchasing 'dust' from those who panned for gold in the outflow from the Ok Tedi mine site, and sometimes dabbled in what he (without elaboration) termed 'risky business'. He was able to get by, but it was not much of a living, and he was continually frustrated by his inability to save money for his business plans.

After living in the village for a year or so, Toby was upset that his brother-in-law had failed to help him with his plans. Disappointed with life in a village surrounded by strangers, he decided to cross the mountain range behind the village to visit a friend in the neighbouring province who, he hoped, might be more helpful. He set off along the muddy track alone, despite knowing that nobody crossed the mountains by themselves – especially not if they were unfamiliar with the terrain.

By late afternoon, Toby had reached the upper slopes as fog and clouds closed in. The light faded, and it began to rain and, later, to hail: he had been caught in the open without shelter or water. As night fell, he slept on a floor of mud, leaves and tree roots. During the night there was heavy rain with thunder and lightning. For reasons he doesn't understand, Toby removed most of his clothing and curled up trying to sleep. When he woke in the morning, it was cold and he was unable to move. Ants crawled over his body, yet he couldn't stand up or even brush them off: he was going to die.

He slept, he thinks, for much of that day, and recalls a wild dog sniffing around him. At one point he heard voices and felt someone touching him. A couple and their children were returning to their home in the next valley, and had seen his clothes along the track. They searched and found him, and woke him up. They gave him water to drink, a bit of food and a shirt to keep him warm – but they could not get him to walk with them. While they were concerned about their own fate and wanting to move on

to reach their valley before nightfall, they said they would try to help him. They asked him who he was and where he had come from and, when he named his brother-in-law, they tried to contact someone for help.

I met Toby about year or so after these events, but when reflecting back on them he stressed that it was his phone-assisted rescue that convinced him that God had a plan for him. Ordinarily, it's difficult to 'find the network' up in that part of the mountains. But, that afternoon, the travelling family was able to get a mobile phone signal and call friends in a nearby village and tell them about Toby's situation. They mentioned his brother-in-law and, from that point on, people patched in a series of calls that reached him at his home in Tabubil. He and Toby's sister went to their village house to see if Toby was there, but found it empty. They followed the track to the foot of the mountain, hoping that Toby would come down or that somebody would bring word. After the better part of a day, however, Toby's brother-in-law rounded up a couple of friends to accompany him up the track. Shouting Toby's name as they went, they eventually found him huddled on the ground. After giving him water, food and a jacket for warmth, they brought him back home.

Connecting Dots

Toby's relation to the mobile system is encompassed in two stories with very different implications. Taking his account of the mobile system and its menace first, it's important to realise that Toby's worries are about Digicel's network but not about the phones themselves, and this suggests that Digicel's claim to be 'the bigger, better network' might provide a clue to his misgivings. In fact, Toby's first story registers worries about Digicel's rise to dominance, raising questions about the nature and sources of its evident power even in the face of government opposition. This isn't unfamiliar territory, nor is it surprising that either Americans or Chinese figure in this context: both countries have been powerful players in Papua New Guinea's resource-dependent economy, with Exxon Mobil's mammoth liquefied natural gas (LNG) project and Chinese acquisitions in the mining industry.⁷ As with resource industries, Digicel is foreign, obviously powerful, and nobody is quite sure how far that power extends, or whether it is ultimately sinister or benign (for example, Bobola 2013).

⁷ At the Ramu nickel mine, for example, and at the Frieda River mining prospect. On images of foreigners in Papua New Guinea's globalising economy, see Wood (1995).

The sense that the mobile system is everywhere also suits it as a lightning rod for anxieties concerning globalisation's powerful but often invisible effects and their sources. Such anxieties are staples of the apocalyptic narratives that provide a low background hum in PNG popular culture. Over the years, many of these narratives seized upon digital technology in scares about barcodes, computers, Y2K, microchip implants and, now, mobile phone networks (for example, Bashkow 2000; Jorgensen 2005: 444–45; Bell 2011). End-time narratives cast such technologies as signs and instruments of a coming 'One-World Government' and the tribulations it will bring (for example, Robbins 2001: 542). Quite apart from their role in Christian apocalyptic ideas, what these digital technologies share is the potential (and explicit aim) of connecting the user to unseen others, and this suggests the possibility of surveillance and unwanted intrusions without one's knowledge.⁸ Writing of the Asaro Valley of Papua New Guinea's Eastern Highlands, for example, Strong (2015: 6) notes that:

the building of cellular towers above the valley [is] said to be linked into a one world government and controlled in New York City's new World Trade Center in order to see inside people's homes.

Digicel's claim to be able to 'connect you, anywhere you are, whether near or if you're far' (Hot Croc 2010) takes on an ominous cast in this light.

Here it's important not to dismiss the apocalyptic view without taking note of the issues of unseen surveillance that it references: in a world of digital spying and remote-controlled drone strikes, Toby's concerns have a lot in common with many of ours in the developed world.⁹ As if to give substance to Toby's story, the PNG Government has apparently followed the lead of several African countries in legislating the registration of all SIM cards (Telegeography 2015), thereby attempting to tie each card to a user identified by name, photograph, occupation and place of residence.¹⁰ Commonly seen as a way of reining in uncomfortable social media commentary on politicians and policies, this move suggests that the

8 In at least one instance, connections with the dead may actively be sought using mobile phones as well (Telban and Vávrová 2014). There are also widespread instances of the desire to be connected to unseen and unknown others in the practice of random dialing, or *gesfaia*, as it is known in Papua New Guinea (Jorgensen 2014).

9 For example, mobile phone assassinations, drone strikes and the use of phones as remote detonators.

10 Details available at PNG eHow (2016).

mobile system is a source of discomfort for the PNG Government as well (Papua New Guinea Today 2015a, *National* 2014; see also, Logan 2012). It also elicited a Facebook response that Toby would recognise:

No place to hide, time is catching up on us, every individual will be hooked up to the one world system.

All of this helps us make sense of Toby's apocalyptic views, but it doesn't explain why he cheerfully continues to use his phone on a daily basis. In closing, I would like to make two suggestions that might help us put this in perspective. The first is that the mobile system – or any phone network, or the Internet – approximates what Morton (2013) has called a 'hyperobject'. Morton defines hyperobjects as entities that are so massively distributed in space and time as to be effectively non-local – though they have *local footprints*. Among other things, he insists that hyperobjects have a kind of agency that exerts its power as resistance to our intentions – but an agency that is hard to pin down to one element or instance.

Conceived as a hyperobject, the mobile system is both patchy and ubiquitous, yet is invisible and not directly graspable as a whole: 'any local "manifestation" of a hyperobject is not directly the hyperobject' (Morton 2013: 1). Yet, as many of Morton's examples suggest, such objects are difficult to ignore, and elicit attempts to posit a sense of the whole that perforce locates agency *somewhere else*. Morton also suggests that the massive but elusive presence of hyperobjects easily gives way to forebodings of a time to come – a 'signal' of what is yet to happen.

This may seem to offer scant help in understanding how Toby can seem to live so happily in the 'awful shadow of some unseen power' (Morton 2013: 25), but at least part of the answer is that his worries about the mobile system are indeed shadows hinting at something unseen – that is, remote. This reaction will be familiar to alarmists, prophets of doom, as well as patently reasonable campaigners seeking to avoid future disaster – the tendency of even those who acknowledge fears about the future to live in the present. This leads me to my second suggestion, which draws upon Robbins' notion of 'everyday millenarianism' (2001).

For Urapmin Christians expecting the millennium, Robbins argues that the sense of an ending doesn't prevent people from going about the usual business of their daily lives. Instead, he shows that – while being attuned to possible signs of an approaching millennium – Urapmin understand themselves to be 'living in parentheses' between the present and an End

that may come at any time. He also proposes that local epistemology normalises a sense of uncertainty about the limits of knowledge, as evidenced in the difference between what one hears and sees. Without being too literal minded, I suggest that Toby shares with Urapmin a healthy awareness of the difference between what one is told and what one experiences, and that it is just this difference that operates in his contradictory attitudes to stories about a possible apocalypse and his crisis on the mountain, where *the phone worked when it wasn't expected to*.

If this is true, then it is tempting to argue that Toby's beliefs are, in Bashkow's terms, 'soft beliefs' that remain speculative and, to an important degree, noncommittal. This captures the disconnect between the picture of a ubiquitous but invisible network and the experience of the phone in hand, where the immediacy of the handheld's usefulness trumps worries about the network's potential or larger meaning. It also affirms the view of another villager concerning the phone's drawbacks and benefits:

With the mobile you can never escape – but then you can never get lost, either.

For Toby, not getting lost was what counted.

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