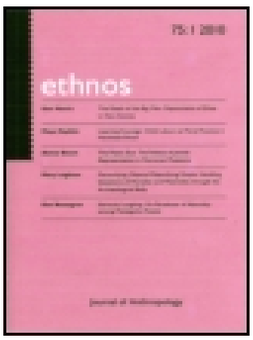

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Non-/Human Infrastructures and Digital Gifts: The Cables, Waves and Brokers of Solomon Islands Internet

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ABSTRACT

This article demonstrates how nonhuman and human infrastructural assemblages, and the brokers that operate as assemblers within them, give rise to localised Internets. With an ethnographic emphasis on the digital transformations of Solomon Islands, we examine agentive brokerage practices surrounding digital multimedia files, downloaded off the global Internet and circulated offline as gifts via MicroSDs. We show how digital brokers use their comparatively unique manoeuvrability within digital infrastructural assemblages. They extend the Internet to offline rural environments, while following and strengthening local systems of moral economic social reproduction. Recognising the interconnectedness of human and nonhuman actors, these brokers are also dependent on the broader infrastructural assemblages in which they operate, especially the cables and waves that initially allow digital bits to travel to Solomon Islands. Localised Internets such as Solomon Islands are, thus, continuously in flux, being perpetually reassembled by the agentive practices of their constituent parts.

KEYWORDS Infrastructures; Internet; brokers; gifts; morality

Introduction

Ed scrambled to pack his bags for the nearly two-day journey from Honiara, Solomon Islands capital, to Ontong Java Atoll, one of the largest atolls on earth and over 300 km from the next island. Solomon Islands Government had just ended its ban on sea cucumber fishing and Ed was moving quickly as Asian buyers had already arrived in the country. Ed excitedly explained that he could earn more money in just a few days of fishing for sea cucumber than in a year working irregular construction jobs in Honiara. He simply had to catch today's ferry to Ontong Java Atoll, which is not only one of the best places to collect sea cucumber but also his ancestral home, a place where he had the right to participate in fishing activities.

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Boats to Ontong Java Atoll are rare and the one leaving that day was certain to be overcrowded. Ed may not even be able to get a seat if he did not arrive well ahead of its scheduled departure time. He knew that many of Honiara-based relatives shared his intentions and he also knew that it could easily be another two or three weeks until the next ferry. Still, and despite the pressure, Ed suddenly stopped his preparations and pulled out his mobile phone. As urgently as he had been packing before, Ed dialled what I[1] would later learn was the number of his brother, Rick, a government employee who had chosen not to risk his salaried position for the temporary riches that sea cucumbers promised. 'Do you have any new movies? Anything that fits home?' Ed asked. A short conversation later, he hung up with a grin on his face. His brother had a few Westerns[2] that he thought his rural family may not yet have copies of and that he also considered suitable for a village audience. Ed would stop by Rick's office on the way to the wharf and transfer the files onto his MicroSD card. The movies were worth the delay, even possibly missing the ferry. Ed explained,

> I would be too ashamed to go home without gifts. Cowboy movies are good … My family wants rice. My sister asked for a new bush knife, but I am spending my last money on the ferry ticket. The cowboy movies are just as good. I will be welcomed home and be able to join one of the boats catching sea cucumbers.

A few days earlier Ed had told me that while there was no mobile phone coverage in his village, mobile phones were incredibly popular and largely used to watch foreign movies. The problem was that getting new movies on Ontong Java Atoll was basically impossible without the help of urban relatives. According to Ed, he and his brother, who downloaded movies via his work computer, had established a reputation as both reliable and morally trustworthy sources for movies. They did not just bring any movie. Instead, they would select those that they and their relatives considered to be morally fitting ones for their ancestral home. After all, Ed explained further, some movies may encourage immoral behaviour such as extramarital sex or excessive alcohol use (see also Hobbis 2017b, 2020). Thus, only some movies are acceptable and desirable gifts, comparable to the rice or bush knife that he was unable to afford.

This article interrogates Ed's, Rick's and others' roles as moral gatekeepers, or brokers, of rural Solomon Islanders' access to the Internet through the offline transport and selective dissemination of foreign multimedia files. Specifically, we ask how this brokerage is entangled with an uneven accessibility of digital infrastructures; and how the interplay of digital infrastructures and brokers, who we conceptualise as human infrastructures, shapes and is shaped by brokers' moral reasoning, 'a social act, wherein people reason about how to act toward each other so that their interpersonal relationships may flourish' (Sykes 2012: 176). We argue that an analysis of brokers as human infrastructures allows for a more concise understanding of how localised Internets (Postill 2011) give rise to, and are informed by, particular sociomaterial networks that comprise both human and nonhuman infrastructures as 'that assemblage of people, objects, practices and institutions on which both the realization and distribution of patterns of connectivity, movement, flow and presence are

dependent' (De Nunzio 2018: 2); and we show how, in Solomon Islands, these non-/human 'infrastructural assemblages' (Foster 2020: 19) have allowed for digital media to flourish within local systems of exchange for social reproduction even though these systems have no direct material or technological connection to the Internet.

Our analysis is based on joint fieldwork focused on the particular experiences of the approximately 12.000 Lau-speakers of Malaita Province, Solomon Islands. Most of our research was completed in the northern parts of the rural Lau Lagoon (eight months) and in Lau urban enclaves in White River, a settlement at the eastern border of Honiara (five months) in 2014 and 2015 with follow up visits in 2018 and 2019.[3] We also travelled frequently between the two sites, accompanying not only temporary migratory labourers and visitors to town, but also a wealth of digital data. In terms of research methods, we combined participant observation with infrastructure surveys and in-depth interviews, in particular as part of a mobile phone protocol. This protocol included interviews about the life histories of individual phones, SIM cards and MicroSDs as a way to better understand the social relations that these digital technologies and media materialise. Each interview covered phone functions, call histories, contact lists, file folders and individual files as well as their histories, when they were used, why some information/files were stored, when, if at all, they were deleted, and how they had been obtained.

To tease out the role of human and nonhuman Internet infrastructures in Lau experiences with, and participation in, the digital multimedia age, we first propose a socio-material approach to studying localised Internets that acknowledges the central position of brokers in the 'interconnectedness of human and non-human actors' (Koster & van Leynseele 2018: 805). Then we describe what it means to travel to Solomon Islands as binary code, outlining the basic nonhuman infrastructures, the cables and waves, that define the contours of any access to the Internet in Solomon Islands; and narrow in on the role of brokers in facilitating this access for a vast majority of Lau, especially those living in rural environments and 'using' the Internet, above all, offline through the consumption of foreign digital multimedia files. We also pay attention to the Internet architectures that these brokers operate in, such as the Internet Cafés that serve as 'boundary places, as privileged material and spatial contexts in which worlds that are incompatible in other contexts become temporarily compatible' (Koster 2014: 126; emphasis removed). Finally, we discuss the 'agentive brokering practices' (Koster & van Leynseele 2018: 806) of these brokers as they are situated in a broader moral economy that not only aims to '[reproduce] relationships in which the transactors have become obligated to each other because of their past transactions' (Carrier 2018: 30) but that has also long been 'pulling foreign wealth [objects] for local reproduction' (Robbins & Akin 1999: 20).

The Socio-Material Networks of Localised Internets: The Case of Solomon Islands

There is an increasingly rich portfolio of ethnographic research on 'local variations in the social and cultural imperatives of the [individual] users' (Foster & Horst 2018b: 14)

of mobile phones and, to a lesser degree, other digital technologies (e.g. see Foster & Horst 2018a; Hobbis 2020; Larkin 2008; Tenhunen 2018). However, as Robert Foster and Heather Horst suggest, this focus on individual user experiences has limited our understanding of the broader 'socio-material network that mobile phones [and we contend also other personal computers such as desktop and laptop computers] bring into being' (2018b: 14). This article proposes a framework for studying these socio-material networks by analytically foregrounding the infrastructural assemblages that 'comprise the architecture for circulation' (Larkin 2013: 328) within a 'field of shifting relations among consumers, companies and state agents' (Foster & Horst 2018b: 6) and the social relations in which they are embedded. A focus on the infrastructural assemblages of digitalisation allows for teasing out 'the ways in which specific material transformations shape social worlds and create new environments' (Harvey in Venkatesan *et al.* 2018: 5) and, thus, for more carefully situating seemingly individualised consumer experiences within the contours of the broader socio-technical processes that encompass them.

Crucially, we argue that these digital infrastructures are not only the cables, towers and (radio) waves that materialise digital connections to global environments but also those people, the brokers, who have privileged access, and the necessary knowledge, to operate and, for their own and others' needs, manipulate and essentially assemble nonhuman digital infrastructures. In other words, we treat brokers and nonhuman infrastructures as integral parts of a broader socio-material network that connects otherwise often disjointed or difficult to traverse environments, as is the case in Solomon Islands.

Solomon Islands is one of the latest (last) places where mobile phones and, until today to a far lesser degree, other personal computers such as laptops, have proliferated. Mobile phones themselves only started spreading across the country around 2010 when a second telecommunications' company – Bmobile in addition to OurTelekom – entered the market. Now, the official number of mobile phone users lies at 76.1 per 100 inhabitants while the official number of (direct) Internet users is still only around 10 per hundred residents (ITU 2018). There are no comparable statistics available for other personal computers that allow for accessing the Internet, but our observations between 2014 and 2019 suggest that their availability is often limited to the few urban elites who have access to work computers or the significant funds necessary to purchase their own laptop (see Hobbis 2020).

This late arrival of Internet-enabled personal computers can be directly linked to Solomon Islands marginal position within the global economy. Solomon Islands is a least developed small islands state, one of the most aid-dependent in the world, and defined by a largely rural population of subsistence horticulturalists and fisherfolk. Access to the formal economy is, with few exceptions, restricted to the capital, Honiara, and provincial political and civic hubs, thus, excluding nearly 80% of rural Islanders as well as a significant portion of urban, largely unemployed youth. Simultaneously, grid-based infrastructures, from roads to electric power, are confined to urban areas and even there many are unable to reliably and continuously afford related bills.

Still, despite these limitations and a broader tendency 'to resist, to varying degrees, attempts to bring them into global systems of cosmological commodity objectification' (Hobbis 2020: 3), mobile telephony and the consumption of 'free' digital multimedia on mobile phones have spread rapidly across the country. As Geoffrey argues elsewhere (Hobbis 2020), mobile phones are valued especially because they allow for maintaining and strengthening the very foundation for social, political and economic organisation and cohesion: kin networks. Mobile telephony allows for bridging the distances between families that urbanisation and (temporary) labour migration created (Hobbis 2017b, 2020). Simultaneously, digital multimedia are not only popular as a way to combat individual or collective boredom, but also serve important roles in family life, as 'babysitter' for children or to strengthen social relations during collective viewing experiences (Hobbis 2017a, 2020).[4]

This said, mobile phones place Solomon Islanders in a double bind as well (Hobbis 2017a, 2017b, 2020). Despite their significance as 'kinship technologies' (Hobbis 2020: 213; see also Lipset 2018), aspects of their telephonic and multimedia functions threaten social cohesion. Mobile telephony, in particular, is seen as responsible for an increase in extramarital sexual relations and, thus, for a rise in often violent tensions between families (Hobbis 2017b, 2020; S. K. Hobbis 2018). After all, mobile telephony allows for easily coordinating, and even locating, new sexual partners (Hobbis 2017b, 2020; see also Andersen 2013; Kraemer 2017). At the same time, there has been a rise in conflicts over the movies watched by particular audiences. For example, mothers worry that fathers' preferences for showing sons action movies will further entrench the belief that violence can 'correct' social problems, also within families (Hobbis 2017a, 2020; S. K. Hobbis 2018). Already before mobile phones, Solomon Islanders viewed foreign multimedia as a source of possibly immoral behaviour (Hobbis 2020), but they were considerably less accessible. Requiring a VHS or DVD player, a TV set, the VHS or DVD, only very few, usually male, elites could afford them and, thus, control what was watched and by whom, for instance, preventing women from attending screenings of action movies (Hobbis 2020). With mobile phones, everyone can potentially watch, and show to anyone, any movie, fostering intense fears about the societal consequences of unfettered viewing (Hobbis 2017a, 2020).

The story of consuming digital foreign multimedia is, however, not that straightforward and essentially entangled with Solomon Islands digital infrastructural assemblages. Even though villagers both avidly consume, and worry about consuming, foreign multimedia files – from Rihanna music videos to movies such as *The Expendables* (2010) or *The Prince of Egypt* (1998) – on their mobile phones, accessing them is not as simple, or individualised, as making a phone call. Instead, somewhat comparable to the globally more well-known practice of the Cuban *el paquete* – a terabyte of pirated digital multimedia that is distributed in Cuba on a weekly basis – these files are intimately tied to non-digital sharing practices. They spread, first and foremost, through an 'effective hand-to-hand network of circulation … based on the physical co-presence of or connection between the participants' (Boudreault-Fournier 2017: 346; see also Köhn 2019).

As Geoff has argued elsewhere for Solomon Islands (Hobbis 2017a) and Monica Stern (2014) and Oli Wilson (2018) for music sharing in Vanuatu and Papua New Guinea respectively, the sharing of digital entertainment files has offered 'a new way of defining contemporary social relations' (Wilson 2018: 70). In town, where especially foreign audiovisual files are more common, they are shared among social networks like betel or tobacco, as 'an essential ingredient in intercourse between both individuals and groups … [signaling] amity, goodwill, a desire to cooperate' (Marshall 1987: 21). Between urban and rural environments, where these files are much rarer, they have become part of remittances, the circulation of cash, goods and foodstuffs that maintain and strengthen trust between kin networks across the distance (Hobbis 2017a, 2020). Especially among those giving, digital entertainment files are a popular option, simply because, in terms of monetary value, they can be quite cheap.[5] Once moved offline and transformed into a sharable format, there is, most of the time, no dollar value assigned to digital multimedia.

However, only a select few know how to, and can directly access, choose and download original files from the Internet, and it is those individuals that, in essence, control which multimedia files are disseminated among Solomon Islands rural, largely offline population and, thus, the shape that Solomon Islands 'offline' or 'bush Internet' takes. They are the Internet brokers that we describe here and that we situate in the broader infrastructural assemblage that encompasses Solomon Islanders' experiences and engagement with digitalisation within and beyond the 'mobile revolution' (Foster & Horst 2018b: 1).

Anthropologies of Brokers

By exploring the role of brokers of Solomon Islands Internet we are building on a long tradition of anthropological research in Oceania (Rodman & Counts 1983) and beyond (e.g. see Geertz 1960; Lindquist 2015a, 2015b; Wolf 1956). Initially popularised by Eric Wolf (1956) and Clifford Geertz (1960), brokers have become recognised as particularly valuable for teasing out 'the critical junctures or synapses of relationships which connect the local system to the larger whole' (Wolf 1956: 1075) and, thus, for '[estimating] the possibilities for effective national [and in more recent research, global] integration … and even offer clues as to the shape that integration will finally take' (Geertz 1960: 249). As the quote by Geertz suggests, a primary goal of these early studies was to account for the rise of nation-states and the changes in power structures and political leadership that this entailed, with a particular interest in local actors, such as the Javanese Muslim leader *kijaji* (Geertz 1960) who used their leadership positions, here as a 'scholar, curer, and mystic teacher' (Geertz 1960: 247), to transition towards a new role as a politician.

As also indicated in Geertz's quote, many of these early studies assumed that this integration would be attained and that brokers would disappear over time (see also Lindquist 2015b). While this promise for stabilisation did not come true, brokers largely vanished from anthropological concerns for much of the 1980s and 1990s alongside a demise of analytical interest in individual local-level politicians such as

the *kijaji* (James 2011; Koster & van Leynseele 2018). However, brokers themselves never disappeared. On the contrary, with neoliberal reforms, the rise of global governance and broader transnational flows, brokers have been proliferating (Lindquist 2015b) and so has the need to engage with them empirically as 'an exemplary methodological entry point' (Lindquist 2015a: 162) for examining global connections and transformations (see also Koster & van Leynseele 2018; Mosse & Lewis 2006). Especially within anthropologies of development brokers have become identified as key actors for understanding how development projects, as well as, we contend, processes of digitalisation, 'become real through the work of generating and translating interests, creating context by tying in supporters and so sustaining interpretations' (Mosse & Lewis 2006: 13; see also Koster & van Leynseele 2018).

In this context, the previously largely unconsolidated debates about brokers (see Rodman & Counts 1983) have then not only re-emerged but the notion of brokerage has also been more carefully theorised (e.g. see James 2011; Koster & van Leynseele 2018; Lindquist 2015a, 2015b). Building, in particular, on actor-network-theory, brokers have increasingly become acknowledged as mediators who 'transform, translate, distort, and modify the meaning of the elements they are supposed to carry' rather than as mere intermediaries who 'transport meaning without transformation' (Latour 2005: 39). In other words, brokers do not only '(i) bridge gaps in social structure, [and] (ii) help goods, information, opportunities, or knowledge to flow across those gaps' (Stovel *et al.* 2011: 21326) but (iii) they are 'also producers of the kind of society in which they re-emerge' (James 2011: 319).

Those who wield this power stand out for '[embodying] varying forms of expertise' (Lindquist *et al.* 2012: 8) and for inhabiting particular skilled positions. These positions may be 'unscripted, informal, personalised, and [even] highly unstable' (Mosse & Lewis 2006: 13) due to, for example, a person's linguistic or, most important here, computer skills. They may, however, also be more formalised, for example, when brokers assume the roles of Internet Café operators or IT professionals. In either case, it is brokers' 'competencies, strategies, and "careers"' (Mosse & Lewis 2006: 13) that set them apart from those for whom they serve as translators and interpreters; and it is this expertise that uniquely positions them to translate, in our case, the meaning of digital scripts to the language, interest, values and concerns of offline digital media consumers.

Simultaneously, because brokers are located at the often frictional and essentially dynamic sites of global-local entanglements, they have also been recognised as 'Janus-like' (Wolf 1956: 1076). Brokers utilise their skills to provide opportunities to those that are marginalised, but also for their own individual gains, and, therefore, they tend to have attributes that make them appear as '[figures] of moral uncertainty,' both 'heroic' and 'hustlers' (James 2011: 319). This ambivalent positioning has informed much of existing anthropological engagements with brokers. On the one hand, they have been ignored as '[belonging] outside or on the margins of ethnography – dependent though anthropologists have been on them to get to fieldwork communities and gain acceptance there' (Keesing 1992: 174). On the other hand, they have been vilified because of their assumed contributions to the destruction of local cultures and, more generally, because of the moral uncertainty that surrounds them (Lindquist

2015a). In this article, we follow John Lindquist's (2015a) call to not immediately judge the morality of brokerage. Instead, we aim to take the individual broker seriously as 'a real person who also is a symbol that embodies the structures of feeling of a particular time and place' (Lindquist 2015a: 163) and to prioritise *their* moral reasoning rather than our own.

Finally, by conceptualising brokers as human infrastructures we build, first, on Lindquist *et al.*'s (2012) suggestion that brokers can, and perhaps even should, be considered part of infrastructural assemblages due to their positioning at the cross-sections, nodes or moorings of 'matter that [enable] the movement of other [human and nonhuman] matter' (Larkin 2013: 239); and, second, on AbdouMaliq Simone's (2004) proposition that people can be, and often become, infrastructures in marginalised contexts simply because the margins are devoid of the life promised by more comprehensively and reliably functioning nonhuman infrastructures.

Simultaneously, in considering brokers as part of infrastructural assemblages, we expand on Martijn Koster and Yves van Leynseele's (2018) call to treat brokers not only as belonging to the assemblages in which they operate but also as agentive 'assemblers' themselves. As Koster and van Leynseele note, recent anthropological work has demonstrated how brokerage is situated 'in complex and dynamic networks in which actors and institutions change, jump scales or substitute each other at high paces' (2018: 808). This provides brokers the opportunity to assume fluid positions within these networks, thus, becoming assemblers themselves as they are able to 'maintain their own room in which to manoeuvre' (2018: 808) within the assemblages to which they belong. Brokers-as-assemblers then bring together different human and nonhuman actors to '[give] shape to a provisional unity – a (temporary) structure' (Koster & van Leynseele 2018: 804), in our case, we argue, the infrastructural assemblage that extends Solomon Islands Internet into offline, rural environments.

However, even as assemblers, brokers 'highly depend on the other components of the assemblages in which they operate' (Koster & van Leynseele 2018: 808), in our case the nonhuman infrastructures that shape the abilities of Solomon Islands brokers to go online and that create and control the 'need' for Solomon Islands digital brokers in the first place. As Anna Tsing suggests, assemblages are 'world-making projects' (2015: 21), they are 'the story' (2015: 158) wherein human and non- or more-than-human actors flexibly entangle, 'coalesce, change, and dissolve' (2015: 158). To understand the story of digitisation, we thus argue that it is crucial to consider how both nonhuman and human infrastructures assemble in a particular place and time, and how the agentive practices of brokers are embedded and met by the agentive practices of nonhuman infrastructures such as the bits, waves and cables that are central to Solomon Islands Internet.

Travelling to Solomon Islands as Binary Code: A Matter of Cables and Waves[6]

Imagine we are a piece of binary code as it travels through a cable to Solomon Islands from Australia, itself connected to the vast global cable network that is the world wide

web, created by the US military during the Cold War as a way to store and communicate data in a non-centralised, modular system with the aim of making critical data less vulnerable to a targeted nuclear strike (Ryan 2010: 13). The binary code travels through networks of cables and nodes. New nodes are constantly being set up, and new cables are frequently being laid. When a node fails, or a link is cut, we are rerouted through a different pathway. We move quickest through cables made of fibre optics but copper also works. We flow from the Australian coast at a relatively high speed through the used but renovated cable, skirting around the south of the Great Barrier Reef, twisting and turning through the archipelago of Solomon Islands to the beaches of Honiara. Here our journey comes to a crashing halt. Traffic becomes intense as we try to jockey for space in the small cable network in Honiara. While, due to largely unreliable methodologies, statistics in Solomon Islands have to be taken with a grain of salt, the data provided by the International Telecommunication Union (2018) provides at least a glimpse into the rarity of domestic cable-based fixed broadband connections – those that most easily allow for going online with personal computers other than mobile phones or tablets: according to the ITU (2018), there are only 0.2 fixed (wired)-broadband subscriptions per 100 inhabitants; and a recent report by the Telecommunications Commission Solomon Islands even suggests that 'residential fixed line and dialup services are fading from the market' (TCSI 2017: 17).

But wait, much of this is hypothetical. The most important cable, the international one from Australia to Solomon Islands is only now being laid. The original plan of it being operational by October 2016 was not realised and the project continues to suffer from delays. A contract with Huawei for the cable – at that time promised to be built by mid-2018 – was cancelled after the Australian Government denied a landing permit for Huawei due to national security concerns (Fox 2018). Subsequently, a new deal was signed, in this case with Australia, earmarking over AUD130 million in development funding for the project (Fox 2018). Currently, the cable is set to be fully operational in 2020 promising 'a more reliable, faster internet with far greater capacity' (Australian High Commissioner Brazier cited in Sanga 2018), connecting not only to Honiara but, through additional nodes, to Malaita, Western and Choiseul provinces. However, nothing is set in stone. Disagreements and uncertainties persist, in particular, about the landing site for the cable in Honiara: some have claimed that the Solomon Islands Government and its international partners have failed to sufficiently include landowning groups in their decision-making (Osifelo 2019).

At the same time, the speed and extent at which the cable may improve Internet access for Solomon Islands largely rural population remain open. Former Minister of Finance and Treasury, Snyder Rini, expressed concern over a report that 'less than three percent of people will [have access to] the cable' (Solomon Star 2015). The problem is that there are, beyond the proposed cable and especially outside some (peri-)urban areas, no nodes or cables in the country. Not even telegraph ones. Connecting Oceania, described by Epeli Hau'ofa (1994) as 'Sea of Islands,' to the Internet means going where cables have not gone before or, alternatively, to rely on the waves that have long defined Solomon

Islands lifeworlds and communication technologies, from the waves traversed by canoes and their navigators (messengers) to those of broadcast radios (see Hobbis, 2017b). Binary code travelling to Solomon Islands, at least for now, then also needs to trade in the comfort of cables for the precarious life of transmission on radio waves or alternatively for the cramped storage on small MicroSD cards that then traverse Solomon Islands non-digital waves in the pockets of their owners.

Instead of the undersea cable, at least for now, binary code has to take a more atmospheric route. In Honiara, close to the downtown core, there is a small array of large satellite receivers at a facility operated by OurTelekom. These satellites connect to a geosynchronous satellite that OurTelekom rents space on while also subletting some of the space to Bmobile. Returning to our journey as binary code, we are transmitted from this satellite, down to the facility in Honiara, from here we are re-transmitted through a series of broadcast towers. The same is the case for Auki, the provincial capital of Malaita. We land at a large satellite receiver in the peri-urban town and are then transmitted across the province via an unevenly distributed network of towers. The towers require frequent maintenance and fail regularly enough, especially during peak usage time, e.g. during Christmas holidays when many calls are made to relatives living elsewhere in the country. Most of these towers are further powered by gas generators that need constant refuelling or by solar systems which are particularly susceptible to theft. In 2014, when we did fieldwork in North Malaita, this system of broadcast towers was only capable of transmitting the most basic of web platforms, loading emails but often not stable enough to transmit a new one. Besides, not all villages and not all houses within villages were sufficiently positioned to catch a (stable) signal with especially the more Internet-friendly touchscreen phones[7] suffering from worse reception than the less sophisticated, but for Internet use far more inconvenient, 'dumb' or 'straight phones.'[8]

One way or the way other, it takes a lot to make a connection with(in) Solomon Islands Internet. As binary code travelling along waves, the first challenge we encounter is the space between the satellite and the dish. Launching back out of the dish we travel through the sky along a series of ever-increasing, yet still insufficient, broadcast towers. Now, if we were going to Ontong Java Atoll we would have to be worried about losing our strength over the open ocean, a space wherein our signal strength dissipates. If we are trying to reach a village on or close to the big islands the terrain is marked by sharp mountains and deep valleys so there are zones in the air we cannot reach, pockets at the bottom of certain valleys and every area hidden behind a ridge that has no broadcast tower. Elsewhere, in many parts of Europe for example, we normally encounter this problem with waves in the last several metres of our journey from a WiFi router to a computer, for example in, and because of, cement-walled apartments. But here, in Solomon Islands, we have to negotiate difficult cable-less geography not of metres, but of many kilometres. Instead of architectural barriers, we need to navigate geographic, oceanographic, climatological and astronomical phenomena such as mountains, valleys, oceans and clouds.

Moving Offline in Solomon Islands: On How to Download Multimedia Files

As the introductory ethnographic snapshot showed, we, binary code, do usually not have to travel as far as the village on radio waves. Most direct and individualised Internet use takes place in Honiara and to a lesser degree in provincial capitals, on mobile phones and especially the Facebook app. However, when we are to be shared and moved offline – especially in the form of audio(-visual) files, as mp3s or mp4s (or one of their equivalents) – then we commonly arrive at one of Solomon Islands urban Internet Cafés or one of the, often expat-owned or, as in Rick's case, government-based, broadband Internet connections. There we are downloaded and moved to a thumb drive or directly to a microSD card via SD card adapters. Once we are secured on a physical storage device we are more reliably mobile. We have now entered the world of offline mobile phones and, thus, the mobilities afforded by users' pockets and by the short distance wave-based connectivity features of most phones, largely Bluetooth in 2014–2015 and the, in terms of transmission speed much faster, ShareIt app in 2018.

The problem is that obtaining us in the first place, moving us offline, is easier said than done, especially when we are bundled into a two-hour long movie. First, we need to be downloaded in a freely sharable format. This means we cannot, at least not without the significant hassle and additional software, be purchased and downloaded via media management platforms like Amazon or iTunes. Most of the time we have to be obtained from an unauthorised source, usually, pirated through a process called torrenting, which uses a file sharing protocol that relies on a peer-to-peer network wherein every user downloads and uploads the file. This, in turn, requires identifying, downloading and installing a torrent client, commonly on desktop and laptop computers through some work also on the, in Solomon Islands, largely unavailable higher-end smartphones.

Another problem is that downloading us consumes large amounts of data which is, at least from a Solomon Islands perspective, anything but affordable. When we are bundled into movies we are usually at least 700MB in size and, in HD, rarely less and often much more than 1.4GB. In Solomon Islands this can be prohibitively expensive, especially since most Internet bundles come with strict download limits. Consider the easiest way to connect a laptop to the global Internet: a 'Bumblebee Access Card' offered by OurTelekom. In 2014-2015, this card allowed users to access a meager 250MB for the cost of SBD250 (USD30,56) in a city with a median monthly income of around SBD990 (Solomon Islands National Statistics Office 2015). WiFi data has gotten cheaper since then, dropping to SBD100 for 1GB in 2019, comparable to some of the available data bundles for mobile phones.[9] Still, the costs are exuberant, especially considering that 1GB may not even be enough to download the desired movie.

The authors only met a handful of Solomon Islanders who owned a laptop (and only one with a desktop computer), largely students or urban elites, lawyers and some government officials. Of those, no one chose to invest in the Bumblebee card or a SIM-based data package for their laptops. This option, it seemed, was reserved

for foreigners like ourselves. Instead, Solomon Islanders would largely go online on their mobile phones, or, if a laptop/desktop computer was needed they made use of their work stations – if they were among the few like Rick who had an Internet-enabled personal computer at work – or, most commonly, Internet Cafés. There are plenty to choose from in Honiara. Some are directly attached to telecommunication providers or broader communication services such as Solomon Post. Others are, in essence, business centres of major hotels that depending on the hotel also second as Internet Café for the general public. Then there are those Internet Cafés operated by entrepreneurs, sometimes local, sometimes foreign. Each of these Internet Cafés have different access and pricing policies. Several of the hotel-based ones have a dress code, for example, excluding a majority of Solomon Islanders who do not own closed shoes. Others charge, similar to mobile phone data plans, per MB used. This said, some Internet Cafés are not only freely accessible to the general public but they also have a more flexible pricing structure. For instance, the Solomon Post Internet Café, at least between 2014 and 2018, sold 15-minute Internet bundles for SBD5.

As long as there is a strong enough peer-to-peer network and sufficient bandwidth this type of Internet Café creates, within Solomon Islands Internet infrastructures, a nearly ideal situation that allows for simultaneously downloading multiple files without any worries about data-dependent costs. It can even be possible to download three to five movies per hour. However, both peer-to-peer networks and bandwidth are often anything but ideal. Linked to its lack of cables and overreliance of waves, Solomon Islands has one of the slowest Internet speeds in the world and within the region. In 2017, Solomon Islands had an average Internet speed of less than 1mbits per second, in comparison to around 8mbits per second in Papua New Guinea (PNG) and 10mbits per second in Fiji, and an average peak speed of around 11 mbits per second, in comparison to 72mbits per second and 64mbits per second in PNG and Fiji respectively (TCSI 2017: 21). Of course, these are just averages and faster download speeds are possible, for example, at the OurTelekom Internet Café in Auki with its direct wired connection to one of OurTelekom's primary satellite receivers. Still, it can take hours if not days or weeks to download a movie, especially if it is older, like the *Prince of Egypt,* and is lacking a large enough peer-to-peer network for a fast and reliable download.

In other words, the nonhuman infrastructural barriers to downloading a movie are considerable at best, requiring a combination of time, money and skill that few Solomon Islanders have. Thus, considering the popularity of foreign multimedia, those Solomon Islanders who have found ways to assemble nonhuman infrastructures in such ways that they grant them access to these files have come to enjoy a unique source of social status and influence, and they shape, similar to nonhuman infrastructures, how digital media are integrated into Solomon Islands offline. In the following, we introduce two additional (sets of) brokers beyond Ed and Rick to illustrate how and in what ways the brokered circulation of digital multimedia files has created the contours of Solomon Islands localised, online but largely offline Internet. Simultaneously, we discuss how these brokers reason about the morality of multimedia files and show how these files have become 'the right kinds of objects' for social reproduction as they are exchanged in 'the right kind of relationship' and 'the right kind of way' (Robbins & Akin 1999: 9).

Solomon Islands Digital Brokers

Stuart

Stephanie met Stuart during one of her many visits to the White River market. At first, their conversation had little to do with multimedia files, focusing instead on Stuart's involvement in the National Election. The official campaign had not yet started, but Stuart had already aligned himself with one of the candidates. Stuart was the candidate's 'tech guy,' designing campaign posters, keeping an eye out for relevant chatter on social media as well as any news from the electoral commission, such as the voter registration lists that they were about to publish online. Stuart was in his late twenties and had largely grown up in Honiara, dropping out of high school after form 6. He had no formal training afterwards and had, more or less accidentally, acquired computer and Internet skills when one of his relatives helped him get a job as an attendee for one of Honiara's Internet Cafés. There Stuart quickly developed the necessary technological know-how. What Stuart liked most about the job was that he got to use the staff computer as much as he wanted including the Internet and, as a nice perk on the side, that the Internet Café was air conditioned – his pay was just as good or bad as when he had worked for various 'Chinese' stores in town.

'This is how I got interested in politics,' Stuart explained, 'I was always on Facebook, debating with everyone about our MPs and the future … ' Stuart did not get to complete his sentence. He was interrupted by a couple of young men, perhaps in their early twenties. After some brief chitchat, one of the men came to the point. 'Do you have any new movies? Anything, really. Perhaps the new Jurassic World? We hear it is good.' 'I don't have any. I am helping with [candidate's name] campaign now. I have no time for this.' The young men seemed disappointed, quickly shuffling away after Stuart's rather impatient response. Before Stephanie could ask, Stuart explicated, 'I am known around here for my access to new movies. Because I worked at the Internet Café, I could download new movies all the time. It is not that difficult, you know, and everyone wants movies all the time.' However, Stuart had quit his job at the Internet Café for the campaign, assuming that he could get it back after, if, of course, he had not received a better position from the candidate-ideally-turned-MP. 'Now it is time for politics. We need to focus on what really matters now.'

Stuart did not seem to want to dwell much further on this part of his life and returned to the conversation about the election. Luckily, Stuart and Stephanie ran into each other again and, this time, Stuart was somewhat more open to talk about this, at first sight, not-so-political aspect of his digital life. He explained how he, along with some of his colleagues, had made use of the unique position that they were in: unlike the vast majority of Honiara residents they had regular, continuous, free access to both a desktop computer and a broadband Internet connection and with that to the world of 'free' movies. One of Stuart's colleagues knew how to torrent; Stuart was not sure when, where and how his colleague had learnt it. Together they ensured that, as long as they were at work, some movies were being downloaded, then converted to a smaller size and the 'right' file type, usually an mp4, to allow for storing and viewing the movie on nearly any mobile phone.

It would often take multiple days to finish downloading a movie but since it did not interrupt their work, they were happy to wait.

Stuart continued,

> Unless someone asks us to download a particular movie, we often download any movie. We do not really know what they are about anyways. But we always watch it first and then decide if we want to show it to and share it with others or not and with whom. Some [movies] are not [morally] good. Some are just boring … You know, the movies are really good for me now. I largely shared movies with people from home.[10] Many know me because of it and they trust my computer skills. Now they trust me when I tell them about my candidate [for the National Election].

Thus, the conversation came back full circle, returning to Stuart's engagement with national politics and revealing how he considered his ability to freely access and download nearly any multimedia file a source of broader social and political influence. Just like betel or tobacco, or any other object for this matter, are not given freely to anyone, but primarily shared within existing exchange relations, so too does Stuart share his movies, above all, with his extended kin group at 'home,' reaffirming his belonging while advancing his status in kin-centric social networks.

However, as a political leader, Stuart also feels responsible for moral and social cohesion at home. Similar to how male village elites used to control which films would be shown to whom (Hobbis 2017a, 2020), Stuart actively chooses which movies to circulate within his social network and which not. He is, in particular, concerned about romantic movies that depict explicit extramarital sexual relations. Like many of the individual, offline consumers of digital multimedia that we talked to (Hobbis 2017a), Stuart was worried that audiences mimic what they see on their screens and that romantic movies may encourage infidelity which, in turn, is a major source of conflict and violence within and between families. The difference is that while many individual, offline consumers have identified ways to circumvent viewing restrictions, privately watching 'immoral' movies on their pocket-sized mobile phone screens, Stuart has some control over if particular movies were ever to circulate among his rural relatives.

> I downloaded most movies that my relatives are watching at home, and I know everyone else who can download and share movies at home. Some movies we do not share with them, like *Game of Thrones.* At home, they do not like TV shows anyways, and *Game of Thrones* is just not good. It fits town … If I bring a 'bad' movie, no one will trust me anymore. Everyone trusts me because I bring only 'good' movies.

Ron

Unlike Stuart, Ron, also in his late twenties, has no outspoken political ambitions and no regular direct access to torrenting platforms. However, he does have access to the next best combination of resources, networks and skills, and, similar to Stuart, he uses this access to foreign multimedia to strengthen interpersonal ties and to participate in reciprocal relationships.

Ron's brother Bert received a used laptop with a DVD-drive from an expat when they left the country. Bert largely uses it for his work, but he also regularly makes it available to his immediate kin network, usually for watching movies but also for converting movie files into sharable formats. The movies themselves are provided by Ron. Ron has various sources for his collection, saved on an external hard drive that he acquired a few years ago just for this purpose. Among the most important sources are friends from high school who are now studying abroad, often in Fiji which, unlike, Solomon Islands, is connected to the global Internet through an undersea cable and has a burgeoning pirated movie market (Starosielski 2010). On return visits, these friends bring back copies of the newest movies and TV shows which they, Ron explained, then share with some of their urban friends, like himself, and if they consider them as suitable, with their families at home. A second source are the Asian-run 'DVD' stores in town (Figure 1). These stores use, similar to Stuart, torrenting platforms to download audiovisual materials. Then they burn them onto DVDs and sell them usually for around SBD20 per DVD. Crucially, rarely are these stores willing to 'just' sell the file by copying it, for example, onto their customers' flash drives. The concern, so store operators told repeatedly, is catching one of the computer viruses that are prolific on Solomon Islands MicroSDs, flash drives and public desktop computers (at Internet Cafés).[11]

The problem is that files 'trapped' on DVDs are not very sharable. We found no desktop computer in an Internet Café with a DVD drive. At the same time, individually owned laptops are rare, and those with DVD drives, like Bert's, are even rarer. Among Solomon Islanders (but not necessarily among the burgeoning urban expat

Figure 1. A DVD store in Honiara, November 2018.

community), most DVDs are watched on portable DVD players, especially in rural areas, and occasionally on DVD players attached to a TV in urban environments. Both of these devices allow for replaying but not for transferring multimedia files. This is what makes Ron's access to Bert's laptop so special. Sometimes he buys DVDs that he is interested in himself, sometimes friends give them to him in exchange for transferring the file to a microSD or flash drive. Ron collects copies of all of these audiovisual files on his hard drive and then makes them available for viewing on Bert's or other friends' laptops on request. Ron is always a welcome guest because of his movies and, regularly, uses them as an everyday survival strategy. Ron is currently unemployed without a fixed address in town. However, his relatives recognise his movies as a valid contribution to their family life, offering regular meals and accommodation in return.

Like Stuart, Ron does not simply screen or share any file with anyone but makes choices as to which files he considers to be suitable for an intended audience. Again like Stuart, he distinguishes, in particular, between rural and urban viewers whom he considers to live in differently moral environments. 'Villages are not like town. When I am at home I go to Church, I pray all the time. In town I drink, I party. I do not want home to become like town. Some movies are too much like town.' Hence, he preferred to only send movies home that he deemed acceptable for a general audience consisting of men, women and children, in particular, cartoons and Westerns/cowboy movies. Ron was also concerned about movies with explicit sexuality though he would, at request, share them with close male relatives as a particularly rare and valuable gift.

Ron explained his concerns about sharing particular movies to Stephanie while one of his relatives, Alvin, similar to Ed, was downloading movies from Ron's hard drive, preparing for his boat ride home the next day. Also like Ed, Alvin wanted to make sure he had something to share with his relatives once he arrived, while Ron reminded him to send his regards, reinforcing that the movies were, above all, his gifts. Nodding into Alvin's direction I asked, 'how come you do not seem to care which movies he transfers to his microSD?' '[Laughing] he will only take the small movie files, the big ones will fill up his storage too quickly.' Ron's strategy for controlling the circulating of movie files was simple. He only converted those movies he was willing to share to the kind of file type and size that would appeal to village audiences while keeping those he deemed 'too urban' out of their reach by making use of mobile phone users' infrastructural limitations.

Brokers of Digital Gifts

Ed, Rick, Stuart and Ron share a deep concern for how they circulate the multimedia wealth that they have each acquired due to differing degrees of chance, ingenuity and resources. They are well aware how popular foreign movies are, both in urban and rural environments, and how difficult it is especially for rural Solomon Islanders to consume them conspicuously despite the increasing proliferation of not only mobile but also smartphones across the country (see Hobbis 2020). After all, direct access

to foreign multimedia is mainly contingent on reliable, sufficient and affordable access to nonhuman Internet infrastructures, a near impossibility in the rural areas that depend on waves, rather than cables, for their mobile networks. It is this awareness, regularly reinforced by requests from rural relatives, that has encouraged Ed, Rick, Stuart and Ron, as well as others like them, to download and circulate digital multimedia files, and, thus, to extend through their movements the materially limited reach of Solomon Islands nonhuman Internet infrastructures, reassembling Solomon Islands Internet as one that extends into offline, rural environments.

The Asian stores that sell downloaded copies of foreign movies and that Ron at times sources his movies from have recognised this rarity as well. However, unlike these stores, the brokers we introduced, and others like them, never even mentioned the possibility of selling their multimedia wealth. Instead, Solomon Islands digital brokers described their moral reasoning about whom to give digital multimedia files, when and why, in ways that reflect the tenants of Melanesian 'gift economies, where the creation and affirmation of relationships is the key goal of interaction, [and where] exchange is carried out precisely in order to foster mutual recognition' (Robbins 2008: 48).[12]

As research across Melanesia has shown, irrespective of the increased entanglements with global economies, 'many local systems of exchange appear to have flourished' (Robbins & Akin 1999: 1; see also Busse & Sharp 2019; Robbins 2008) and they have done so in an ongoing commitment to social reproduction through the circulation of objects. Sharing defines what makes a 'good' person and how 'good' social relations are maintained. In both rural and urban environments rarely a day goes by that one does not give and receive a gift, especially food stuffs, be it a cooked meal or a betel nut (e.g. see Maggio 2018; Marshall 1987; Robbins 2008). However, as Joel Robbins and David Akin suggest,

> beneath the surface of any well-ordered Melanesian economy there always lurks the possibility that objects will begin to consort promiscuously, erasing in the shuffle the many boundaries between kinds of persons and kinds of relationships that people have worked hard to create through their exchange. (1999: 7)

In other words, not every exchange is considered to be moral, not every object can and should be exchanged and all exchanges have to take place in the right kind of relationships.

The moral reasonings of Solomon Islands digital brokers closely reflects this concern. As our examples show, they regularly circulate foreign movies only among their kin networks which remain at the heart of social relationships and are especially important for cultivating ongoing connections between urban and rural environments (e.g. see Lindstrom & Jourdan 2017). In particular, when movies are meant to travel to brokers' rural ancestral homes, they are selected carefully for content that brokers consider unlikely to endanger the perceived moral integrity of rural environments. For example, we noted how Ed is aware that his digital gifts are only valued if recipients deem them to be morally fitting and that for him, going home without such morally 'good' gifts is inconceivable. This is the case not because it may simply mean that

his relatives do not support him with his goal of fishing for sea cucumbers. Instead, his motivation is emotional, demonstrating the extent to which sharing is foundational to his social identity and moral reasoning: Ed would be too 'ashamed' to travel to Ontong Java Atoll without morally appropriate gifts.

This emotional moral reasoning is also reflected in our research in the rural Lau Lagoon, where debates about the morality of individual movies have become a growing source of friction (Hobbis 2017a, 2020). In this already volatile context, digital brokers risk, according to Stuart, losing the 'trust' of their rural kin if they bring the 'wrong' kind of movies and, thus, they risk endangering the already precarious relationships and sense of belonging that they seek to maintain by bringing digital multimedia files to their ancestral homes in the first place.

As Debra McDougall (2017) argues, urbanites worry about 'losing their passports,' their rights to return home, if they do not participate in local systems of exchange. However, doing so is anything but straightforward. There is the problem with the geographical distance that makes everyday sharing nearly impossible. Another concern is affordability for those living precarious lives in town. Neither Ron nor Stuart could afford gifts other than the for them 'free' multimedia files. However, perhaps most problematic is that urban-rural relationships are perpetually overshadowed by moral uncertainties about life in towns. Whenever we talked to either our rural or urban interlocuters about this relationship, the conversation would quickly turn to discussions about morality. Urban lifestyles were often described as morally dangerous, by encouraging, among others, excessive consumption of alcohol or extramarital affairs. In comparison, rural environments are regularly idealised as moral strongholds that need to be protected against the encroachment of urban values and the disunity and friction that they purportedly bring (see also Hobbis 2019; Lindstrom & Jourdan 2017; Maggio 2018).

Solomon Islands urban digital brokers are situated at the heart of this tension and they echo it in their efforts to integrate digital multimedia morally within local systems of exchange. In so doing, Solomon Islands digital brokers are, indeed, '[figures] of moral uncertainty' (James 2011: 319) because they may circulate 'wrong' movies, within the 'wrong' relationships and the 'wrong' locations. They may also use their expertise in ways that clearly help their social standing, as exemplified in Stuart's use of his multimedia wealth during the 2018 electoral campaign. However, Solomon Islands digital brokers are also ultimately seeking to provide moral certainty in an otherwise morally uncertain environment. By gifting the 'right' multimedia files within the 'right' relationships, in the 'right' locations, they actively contribute to local processes of social reproduction that are perpetually strained by the geographical stretching of kin networks and the perceived dangers of 'modern' urban environments.

Conclusion

Here, in rural Oceania, as it digitally transformed, brokers are a critical part of the digital infrastructural assemblage. As we have shown, in Solomon Islands, cables and waves allow the global Internet and its binary code only somewhat reliably to

reach urban centres. Rural areas remain at least materially disconnected. They do not have any cable infrastructures and wave-based transmissions of binary code are regularly interrupted by geographic, oceanographic, climatological and astronomical phenomena, from mountains to oceans to clouds. However, these material limitations do not mean that rural Solomon Islanders do not have access to the Internet. On the contrary, Solomon Islands villagers are keen and regular consumers of the digital multimedia files, especially foreign movies, that circulate on the global Internet.

Solomon Islands Internet includes offline rural environments because digital brokers emerged who have located a room to manoeuvre within the nonhuman infrastructural assemblage that limits the ability of rural Solomon Islanders to go online. As agentive assemblers, these brokers use their privileged access to nonhuman digital infrastructures to strengthen their social positioning through digital gifts, while ensuring that the multimedia files that they circulate correspond to the moral priorities of their rural relatives. In other words, they have identified ways to not only extend but also translate aspects of the global Internet, in this case, its multimedia files, into a broader system of local moral economic social reproduction, both for their own gains and for that of their kin networks.

At the same time, Solomon Islands digital brokers are not independent from the broader infrastructural assemblages in which they operate. For example, should Solomon Islands undersea cable ever become operationalised as envisioned by its proponents as extending affordable Internet across the archipelago, Solomon Islands digital brokers' current room for manoeuvre may shrink, shift, or even disappear completely. Even without the undersea cable, Solomon Islands brokers are perpetually dependent on the bits that they download and that may be dangerous for other bits as well as the devices that carry them, for instance, in the form of one of the many viruses that travel largely unhindered through Solomon Islands Internet.

Solomon Islands Internet, or any localised Internet for that matter, are, thus, continuously in flux, part of an infrastructural assemblage that includes 'complex and dynamic networks in which [human and nonhuman] actors and institutions change, jump scales or substitute each other at high paces' (Koster & van Leynseele 2018: 808). We contend that by identifying and examining agentive practices within these shifting infrastructural assemblages, such as Solomon Islands digital brokers but also, not at the heart of this article, the agentive practices of bits or other nonhuman infrastructures, it becomes possible to develop a better understanding of localised Internets, of how they emerge at a particular time and in a particular place, and of how they 'coalesce, change, and dissolve: this *is* the story' (Tsing 2015: 158).

Notes

1. Written from Stephanie's perspective.
2. See G. Hobbis (2018) for a discussion of the popularity of Westerns or 'cowboy movies' in Solomon Islands.
3. In White River we also met various non-Lau speakers such as Ed and Rick who were often connected to our Lau interlocutors through marriage.

4. For broader research on the social significance of collective viewing and on the role of foreign multimedia in negotiating 'modernity' and its anxieties see, among others, Larkin (2008) and Boudreault-Fournier (2017).
5. Avoiding giving, or identifying ways to reduce especially the monetary value of remittance requests, is a common response to navigate the, at times, intense demands for remittances and daily sharing (Dalsgaard 2013; Hobbis 2017a). These strategies do, however, in no way undermine the overarching significance of reciprocity as foundation for Malaitan sociality.
6. In addition to news sources, this narrative is largely based on interviews with telecommunication executives and informal conversations with some of the individuals involved in constructing and, at times guarding, the telecommunication infrastructures (especially towers) that define Solomon Islands nonhuman Internet infrastructures.
7. Reception is not as much of a problem with higher quality touchscreen phones. However, these models are unaffordable to the vast majority of both rural and urban Lau.
8. Based on more recent reports from North Malaitan villagers the situation has not substantively changed. Around mid-2015, it became possible to access Facebook and even to post pictures. However, this turned to be merely a temporary improvement. Since then better connectivity comes and goes.
9. For example, Bmobile sold 1.25GB for SBD90 in 2019 and, during promotions, data costs can even go lower. These data plans can, theoretically, be accessed on some high end laptops with SIM card slots or through a dongle which is a device that allows for connecting a SIM card via a USB port to a laptop. Dongles are sold in Solomon Islands, but the authors did not meet any Solomon Islander using this option or a built in SIM card slot.
10. 'Home' refers here to Stuart's ancestral home in rural Solomon Islands.
11. See Hobbis (2017a: 168–169) for a more detailed discussion of computer viruses in Solomon Islands.
12. We do not propose a simplified binary between commodity and gift economies, with the former implying a pre-occupation of self-interest through transactions with money and the latter a prioritization of relationships through exchange and sharing (see Robbins 2008). On the contrary, there is ample empirical evidence that challenges this binary such as Rodolfo Maggio's (2016) research with Malaitan Kwara'ae spouses in Honiara (see also Busse & Sharp 2019; Sykes 2007). Maggio shows how spouses sell goods to each other, rather than sharing them. They consider the act of selling as the morally 'good' or even 'better' way for maintaining their relationships. Crucially, however, Maggio's research emphasizes the significance of relationships for economic transactions as well. It is this economic focus on social reproduction that is reflected in Solomon Islands digital brokers' decision-making.

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