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# INTERNET KAMPUNG: COMMUNITY-BASED INTERNET IN POST-SUHARTO INDONESIA

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In 2010, an urban neighborhood in Yogyakarta, Indonesia, began to make headlines in local newspapers for its innovative appropriation of the internet for local development. At a time when Indonesia had an internet penetration rate of only about 10 percent, totaling around twenty-five million users,<sup>1</sup> this neighborhood, which became known as Kampoeng Cyber, boasted to local media that more than 80 percent of its houses were connected.<sup>2</sup> Since that time, local and national newspapers, television news channels, and radio stations have been enamoured with the story of how one lower-middle-class neighborhood reportedly overcame obstacles to its socioeconomic development by saturating the neighborhood with internet access. By collaborating with the local internet service provider to set up a system of shared cable networks connected through switch-hubs, residents were able to reduce the cost of the internet for individual households. By 2013, each connection cost only 40,000 Rp per month (about US\$4), compared to the average of about fifteen dollars for home connections in neighborhoods where incomes averaged only about 150 to 300 dollars

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<sup>1</sup> "Indonesia Internet Users," <http://www.internetlivestats.com/internet-users/indonesia/>, accessed June 27, 2017.

<sup>2</sup> "Kampoeng" is an older spelling of the Indonesian word "*kampung*," which is typically used to refer to an Indonesian village or a closely knit urban neighborhood or community. "Eighty percent" is a statistic that residents of Kampoeng Cyber frequently cite to journalists and academics (although they usually phrase it as twenty-three out of twenty-five houses). These numbers have fluctuated over the years, as some residents temporarily or permanently disconnect from the internet due to lack of funds, or when young household members move out to go to college or for other reasons.

per month at the time.<sup>3</sup> In this manner, a once prohibitively expensive service became available for almost everyone in the neighborhood.

In the dozens of articles and interviews that have appeared in the media since 2010,<sup>4</sup> residents reported that the 1997 Asian financial crisis had devastated the previously dominant local economy of traditional Javanese batik-making (an ancient technique for decorating cloth using wax and dye), but the neighborhood's innovative appropriation of the internet and social media to promote home businesses had given the community new opportunities for economic and social development. According to such reports, Kampoeng Cyber dwellers believed that connecting to online markets was a convenient solution to sparse business opportunities in the neighborhood. Though they lived in the popular tourist area next to the Sultan's palace in Yogyakarta—a city known for its Javanese royal courts, high culture, and shadow puppet performances—the small batik businesses that survived the financial crisis could not compete with the larger shops on nearby main streets. Finding coveted salaried employment, such as civil service jobs, was even more difficult. In an increasingly neoliberal era where personal entrepreneurship was highly valued by the government and a lack of opportunity forced regular citizens to be resourceful, residents reportedly initiated their own community internet access scheme as a grassroots workaround to boost their own development.

Information and communications technologies (ICTs) have played a major role, at least symbolically, if not always materially, in the politics of development in Indonesia's democratic era. One of the most prominent infrastructural projects to enter the country's development discourse since the end of Suharto's autocratic New Order regime (1966–98) has been the expansion and improvement of high-speed internet networks throughout the nation's vast archipelago. Several government initiatives have been launched to connect the country's ocean fiber-optic cable infrastructure to a global network, while also expanding internal access to rural and remote areas.<sup>5</sup> The central government's desire to connect its population to the internet is rooted in its ambition to connect Indonesia to a growing digital economy that aspires to link even the most marginalized citizens to global markets. This is part of a global development movement called Information and Communications Technology for Development (ICT4D), the objectives of which are to harness the potential of ICTs to increase human capability and encourage economic growth.<sup>6</sup> Yet in the gap left behind by large-scale programs that have failed to connect most of Indonesia's population to the internet, some communities have begun to find their

<sup>3</sup> Based on a survey of forty-seven adults from my own research in 2013–14. Income ranges from about one million Rp per month per household (about US\$100 at the time) to as high as 40 million Rp (about US\$4,000, although this is atypical). The elected community leaders have described the neighborhood as low to middle class (*kelas menengah ke bawa*), although urban *kampung* neighborhoods are typically associated with lower-class and low-income residents.

<sup>4</sup> For example, see: "Kampoeng Cyber," <http://www.insideindonesia.org/kampoeng-cyber> accessed June 21, 2018; and Fahmi Ramadhan, "From Traditional to Digital-Savvy: The Story of Kampoeng Cyber," <https://medium.com/pulse-lab-jakarta/from-traditional-to-digital-savvy-the-story-of-kampung-cyber-928aa957ac81>, accessed June 21, 2018.

<sup>5</sup> For example, the Palapa Ring project and Sub-district Internet Service Center (PLIK) and Mobile PLIK (MPLIK) initiatives, which I discuss further in the section titled "Internet Access in Indonesia."

<sup>6</sup> Tim Unwin, *ICT4D: Information and Communication Technology for Development* (Cambridge: Cambridge University Press, 2009), 134.

own solutions to the digital divide. In the shifting terrain of Indonesian internet infrastructure—which has temporally followed the transition from an autocratic regime bent on censoring information access to a democratic government that seeks to increase access—a new (and possibly fleeting), typically grassroots, internet-access model has emerged. I call this the internet *kampung*.

Like their early North American counterparts (known as “wired suburbs” or “smart communities”<sup>7</sup>) that emerged for a brief period in the mid-1990s, internet *kampungs* are neighborhoods that define themselves according to their comparatively high concentration of “always on” internet access, thus aligning their ambitions with the central government’s ICT4D visions. Further, Internet *kampungs* appear to align equally with the international development discourse known as Community-Driven Development (CDD), which champions the empowerment of small-scale communities to participate directly in their own socioeconomic improvement. Kampoeng Cyber residents pride themselves on their ability to adopt new technology while maintaining a strong sense of Javanese community sustained by their collective values of *kebersamaan* (togetherness), *gotong royong* (working together), and *rukun* (harmony). By representing themselves as technologically savvy, yet traditionally community-oriented, internet *kampungs* successfully adapt to the neoliberal culture of governance that has intensified in the past two decades. As the structure of government has steadily decentralized authority and the management of resources to the local district level, bids for power and resources have increasingly been made according to an economy of what I call “standing out” that is based on the collective expression of cultural characteristics.<sup>8</sup> As will be discussed, in the context of Indonesia’s transition to democracy after 1998, the allocation of government resources has increasingly depended on collective claims to distinct cultural identities.<sup>9</sup> In many parts of Indonesia, districts and subdistricts that have successfully demonstrated their unique ethnic or cultural roots have been able to petition the government for their own place, and therefore their own set of funds and resources, in Indonesia’s shifting administrative boundaries. Similar principles seemed to apply to groups that emphasized their cultural heritage—in this case, represented by Kampoeng Cyber’s reportedly strong Javanese community spirit—to attract the attention of government or corporate sponsors who bought into the discourse of ICT4D and community development.

Internet *kampungs* like Kampoeng Cyber are not simply the material result of increased access to community internet infrastructure. As Brian Larkin has famously argued, infrastructures are more than just “built networks that facilitate the flow of goods, people, or ideas and allow for their exchange over space.”<sup>10</sup> Larkin contends that studying the form (rather than just the content), or what he calls the “poetics of infrastructure,” can provide insight into how the built environment fits into our political and social lives.<sup>11</sup> I argue that the value of Kampoeng Cyber as a development

<sup>7</sup> Keith Hampton and Barry Wellman, “Neighboring in Netville: How the Internet Supports Community and Social Capital in a Wired Suburb,” *City and Community* 2, 4 (2003): 286.

<sup>8</sup> Elizabeth Pisani, *Indonesia Etc.: Exploring the Improbable Nation* (London: Granta, 2014), 61.

<sup>9</sup> Pisani, *Indonesia Etc.*, 61, 122–24.

<sup>10</sup> Brian Larkin, “The Politics and Poetics of Infrastructure,” *Annual Review of Anthropology*, 42 (2013): 328.

<sup>11</sup> Larkin, “The Politics and Poetics of Infrastructure,” 329.

model lies less in the provision of access to internet infrastructure (since not everyone in the neighborhood benefitted from access in the same way) than it does in the symbolic representation of idealized forms of that access. In other words, the *story* of how Kampoeng Cyber reportedly balanced its cultural and technological needs is what holds value for residents who seek to align their grassroots development objectives with broader neoliberal discourses of community-based ICT4D. In spreading that story through the media, or in interviews with academics, Kampoeng Cyber residents captured the attention of government development practitioners and corporate sponsors who benefitted, either politically or economically, from encouraging communities to self-develop.

This paper draws on an ethnographic study of Kampoeng Cyber to demonstrate the ways in which communities in Indonesia have begun to adopt the internet as both a symbolic and material infrastructure tool in pursuance of their community development objectives. In the case of Kampoeng Cyber, the representations of how the internet is adopted by a cultural community play as much of a political role in the lives of its residents as do its wires, cables, and signals, or the bits and bytes, that carry messages among networks of people.

The data for this study was collected during twenty months of fieldwork I conducted between 2012 and 2014. During that time, I lived in the family home of the neighborhood's elected leader and participated in the community's daily activities, which included quotidian social interactions between neighbors and ritual gatherings (such as weddings, funerals, and other religious events). In 2013, I also conducted semi-structured and informal interviews with residents, as well as a basic household survey of forty-seven adults. Since 2014, I have used social media like Facebook to keep in contact with several key figures in Kampoeng Cyber, including the elected community leader and his successor, who replaced him in 2014–15. Some of the data I collected from the period between 2014–18 stems from these online interactions.

### **Internet Access in Indonesia**

The history of Indonesia's internet is closely associated with the changing relationship between state and society since the final years of the country's autocratic period under Suharto (1966–98). When the internet was first introduced to Indonesia in the 1980s, availability was limited to universities and research institutions.<sup>12</sup> In line with the New Order's previous two and a half decades of controlling access to media and its content as a tactic for curbing the emergence of civil society, internet use was initially reserved for elites. However, according to Merlyna Lim, the government's continuing efforts to censor the nation by restricting access to information came into conflict with its desire to expand governmental influence through media. For example, the launch of Indonesia's Palapa satellite in 1976, which became both a symbol and an instrument for Indonesia's unification,<sup>13</sup> made it possible for the government to

<sup>12</sup> Merlyna Lim, "The Internet, Social Networks, and Reform in Indonesia," in *Contesting Media Power: Alternative Media in a Networked World*, ed. Nick Couldry and James Curran (Lanham: Rowman & Littlefield Publishers Inc., 2003), 276.

<sup>13</sup> See: Joshua Barker, Webb Keane, Peter Redfield, Gustavo Lins Ribeiro, and Margaret Wiener, "Engineers and Political Dreams: Indonesia in the Satellite Age," *Current Anthropology* 46, 5 (2005): 703;

extend its ideological influence over the nation. Through a large-scale project called Televisi Masuk Desa (Television Comes to the Village), state-controlled television content entered the homes and villages of most Indonesians via the Palapa satellite system.<sup>14</sup> While print, radio, and other centralized media were easily controlled by the New Order government, censorship of the internet in its early days was more challenging because of its novelty and inherently distributed nature.<sup>15</sup> By 1995, the public could technically access the internet through state-owned telecommunications companies, although, because these were too expensive for most, usership remained limited.<sup>16</sup>

In 1997, the Asian financial crisis decimated the purchasing power of Indonesians, exacerbating the inability of most non-elites to afford an internet connection. In response, a new kind of space emerged that permitted individuals to circumvent the high economic and social cost of purchasing state-controlled internet.<sup>17</sup> The *warnet*, an internet-café type business that charged customers a low hourly fee for providing computer-based internet access, became the primary internet access point for most Indonesians, accommodating approximately 60 percent of Indonesia's internet users by the mid-1990s.<sup>18</sup> Short for "warung internet," the term *warnet* stems from the ubiquitous presence of *warungs* in Indonesia: street-side food stalls that sell inexpensive food and drinks and act as popular spaces for socializing. When *warnets* emerged, they duplicated the sociability of *warung* spaces and offered an alternative point of information access for people, especially, according to Lim, youth seeking civic spaces away from the prying eyes of the state.<sup>19</sup> Not yet equipped to effectively censor the exponential increase in information spread by *warnet* users, who redistributed unfavorable information about the New Order regime through their existing social networks, the state was unable to withstand, among other factors, a student-led uprising that had been fueled by such information.<sup>20</sup> Partly as a result, Suharto resigned his thirty-two-year presidency in 1998, thus ending his dictatorship and allowing Indonesia to move toward electing its leaders.

By 2012, there were an estimated 30,000 *warnets* in Indonesia, mostly operated commercially in urban and suburban areas.<sup>21</sup> According to ICT Watch, at the end of

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Merlyna Lim, "Cyber-Civic Space in Indonesia: From Panopticon to Pandemonium?" *International Development Planning Review* 24, 4 (2002): 383–400; and Lim, "The Internet," 273–88.

<sup>14</sup> Lim, "Cyber-Civic Space in Indonesia," 383–400.

<sup>15</sup> Lim, "The Internet," 274.

<sup>16</sup> Lim, "The Internet," 273–88.

<sup>17</sup> See: Lim, "Cyber-Civic Space in Indonesia," 383–400; Merlyna Lim, "From War-Net to Net-War: The Internet and Resistance Identities in Indonesia," *The International Information & Library Review* 35, 2–4 (2003): 233–48; and Lim, "The Internet," 273–88.

<sup>18</sup> See: Lim, "Cyber-Civic Space in Indonesia," 383–400; Lim "From War-Net to Net-War," 233–48; and Lim, "The Internet," 273–88. See also Merlyna Lim, "Dis/Connection: The Co-evolution of Sociocultural and Material Infrastructures of the Internet in Indonesia," 135–52, in this issue of *Indonesia*.

<sup>19</sup> See: Lim, "Cyber-Civic Space in Indonesia," 383–400; Lim "From War-Net to Net-War," 233–48; and Lim, "The Internet," 273–88.

<sup>20</sup> Lim, "Cyber-Civic Space in Indonesia," 383–400. In May 1998, students at universities across Indonesia held demonstrations protesting the country's political and economic deterioration, blaming President Suharto for massive oil and gas price increases, demanding reforms, and insisting that Suharto step down.

<sup>21</sup> Rudi Rusdiah, "Internet Center (*Warnet*) Diffusion in Rural Villages to Sustain Development or Big Data Trend?" *Information Systems International Conference*, (2013): 147.

2013, 71.9 million Indonesians, or 29 percent of Indonesia's population of 248 million, were connected to the internet, with the highest concentration of users in western Indonesia and especially Java.<sup>22</sup> By 2016, APJII (Asosiasi Penyelenggara Jasa Internet Indonesia, Indonesian Internet Service Providers Association) reported 132.7 million internet users, with a penetration rate of 50.4 percent, 88 million of which were Facebook users (66 percent). With the emergence of new forms of public internet access after the revamping of media policies following Indonesia's transition into its democratic period (*reformasi*), more Indonesians began to enjoy unfettered internet access. Despite the inequalities of access that followed urban–rural, class, and literacy divides, user numbers continued to grow substantially. *Warnets* continued to expand during their heyday, between 2000–08, although thereafter they were rapidly superseded by the proliferation of inexpensive, prepaid mobile phone internet provided by a newly competitive telecommunications market. In 2013, 115 million of the 270 million active cellular subscriptions had access to data services.<sup>23</sup> In what Rudi Rusdiah has called the *warnet's* “sunset period,” many urban *warnets* closed, sometimes moving to rural areas or transitioning into internet gaming centers in response to the upsurge in the popularity of replacement technologies, such as Blackberry, inexpensive tablet computers, and Android smartphones.<sup>24</sup> In their stead, as Lim has recently observed, many young urban people soon began to congregate with their smartphones at the ubiquitous 7-Eleven (“Sevel,” to most Indonesians) or other convenience stores that provided free Wi-Fi access with a purchase, transposing already existing mediated social practices to new locales.<sup>25</sup>

Yet access inequalities continued to be rampant in Indonesia. In response to the growing “digital divide” between rural and urban areas, and between eastern and western parts of Indonesia, the government implemented two broad technical solutions. First, in the late 1990s, the government initiated the Palapa Ring project (then known as Nusantara 21), which aimed to improve the quality of internet access throughout Indonesia by providing broadband to the entire archipelago via underwater and underground fiber-optic cable. After a long hiatus in the late 1990s and early 2000s, resulting from the Asian crisis, the government renewed those efforts. By 2012, 80 percent of the 57,087-kilometer-long cable had reportedly been installed, the rest of which was expected to be completed by 2019.<sup>26</sup> Second, starting in 2010, the Ministry of Communication and Information Technology (MCIT, Kominfo) implemented a rural access scheme designed to bring *warnet*-like internet stations to remote subdistricts all over Indonesia. This program, called Subdistrict Internet Service Center (PLIK, Pusat Layanan Internet Kecamatan) and Mobile PLIK (MPLIK), used satellite networks to connect marginalized communities either through fixed centers or mobile centers comprising vans fitted with computers and satellite dishes to reach the most remote areas. A total of 5,748 PLIK and 1,907 MPLIK stations were

<sup>22</sup> Donny B.U., “A Brief Overview of Indonesia Internet Landscape,” ICT Watch, Indonesia (April 2014), <http://www.gp-digital.org/wp-content/uploads/pubs/IND%20-%20mapping%20-%20Indonesia%20Internet%20Landscape%20-%202014.pdf>

<sup>23</sup> Donny B.U., “A Brief Overview of Indonesia Internet Landscape.”

<sup>24</sup> Rusdiah, “Internet Center (*Warnet*) Diffusion,” 147–51.

<sup>25</sup> Lim, “Dis/Connection.”

<sup>26</sup> Donny B.U., “A Brief Overview of Indonesia Internet Landscape.”

reportedly delivered by 2013. However, following reports of possible corruption and mismanagement, the program was suspended shortly thereafter.<sup>27</sup>

The nature and distribution of internet access has changed significantly in Indonesia as the country has adjusted to changing political regimes and technological improvements. Whereas the early New Order government was bent on censoring, banning, and repressing access to information, the latter part of the regime began to make concessions in the late 1980s and early 1990s, which finally widened to a broader acceptance of the importance of information access as a buttress to Indonesia's nascent democracy in the early 2000s. During this time, citizens turned to *warnets* as the most affordable means for acquiring access to an increasingly indispensable source of information. Soon, both government and communities of citizens began to look for other creative avenues for bridging the digital divide.

### The Internet as Infrastructure of Development

Since *reformasi*, development discourse in Indonesia has centered partly on achieving universal access to information and communications technology, including the internet, as an indirect path to achieving economic growth. Whereas the Palapa Satellite was meant to unify the nation under the panoptic eye of the state,<sup>28</sup> the Palapa Ring was designed to connect disparate islands in an effort to bolster the digital economy. Joko Widodo, Indonesia's president since 2014, has urged that Indonesia "must not fall behind" in the growing global digital economy.<sup>29</sup> In accordance with this discourse, several cities, including Yogyakarta (Central Java) and Banyuwangi (East Java), have claimed "Cyber City" status. In 2013, the sultan of Yogyakarta and the president of Telkom (PT Telekomunikasi Indonesia, Indonesia's largest telecommunication and network provider) inaugurated the "Yogya Cyber City" project by installing free Wi-Fi access along the length of Malioboro Street, a major shopping and tourism destination in Yogyakarta.<sup>30</sup> Starting with fifty internet access points along Malioboro, the government envisioned providing up to a thousand access points throughout the city in the long-term. The local government of Banyuwangi also made efforts to "rebrand" the city to shed its infamous association with "black magic."<sup>31</sup> By equipping the city's parks with Wi-Fi, the government encouraged an influx of visits from both tourists and residents, revamping the city's image and economy with a focus on internet access. In Bandung, as well, the mayor installed over five thousand internet hotspots in 2016, with a plan to add another thirty-five thousand as part of the city's vision to "embrace digital life" and create a "smart

<sup>27</sup> Donny B.U., "A Brief Overview of Indonesia Internet Landscape."

<sup>28</sup> Lim, "Cyber-Civic Space in Indonesia," 383–400.

<sup>29</sup> Fajar W. Hermawan, "Mimpi Besar Jokowi untuk Internet Indonesia," *Beritagar.id*, September 28, 2016.

<sup>30</sup> Feriolus Nawali, "Sultan HB X dan Dirut Telkom Resmikan Yogyakarta Cyber City," *Rakyat Merdeka Online*, March 21, 2013, <http://ekbis.rmol.co/read/2013/03/21/103139/Sultan-HB-X-dan-Dirut-Telkom-Resmikan-Yogyakarta-Cyber-City->

<sup>31</sup> Indra Harsaputra, "From Den of Sorcerers to Cyber City," *Jakarta Post*, July 3, 2013, <http://www.thejakartapost.com/news/2013/07/03/from-den-sorcerers-cyber-city.html>. According to Harsaputra, the effort to wire the city and change its public image followed a series of murders of several of its "sorcerers" (known locally as *dukun*) in 1998.

city.”<sup>32</sup> Overall, these attempts by locales to change both their economy and images based on access to internet infrastructure helped encourage other local communities to adopt a similar approach to their own development, starting before 2010.

### **Internet Kampungs**

In tandem with *warnets*’ decreasing popularity engendered by the expansion of mobile internet, Indonesia experienced a seemingly incongruous increase in the appearance of what I call community-based internet saturation points (CBISPs). Defined broadly as geographically bounded and community-oriented internet networks, CBISPs typically aim to achieve higher-than-average levels of internet connectivity within residential neighborhoods or towns to improve socioeconomic conditions there. These connections can be initiated by grassroots, nongovernmental (NGO), corporate, or government bodies (or any combination thereof). The organizers often have specific objectives—such as increasing the number and quality of small-scale internet businesses, improving access to social services (e.g., e-education and e-government), or cultivating quality neighborhood-based social networks in typically anonymous urban contexts. In North America, the appearance of similar neighborhood networks peaked in the mid- to late-1990s, when the internet was just beginning to gain traction among the general population. Prior to the expansion of mobile internet-use, several neighborhoods adopted experimental internet networks to test the impact of the new technology on community life. In Virginia, the Blacksburg Electronic Village claimed the title of being the first of its kind in the United States, boasting an internet penetration rate of nearly 50 percent of its population in 1993, totaling approximately seventeen thousand people.<sup>33</sup> Initiated by a group of scholars from Virginia Tech (Virginia Polytechnic Institute and State University), the project aimed, first, to connect neighbors to each other and to the university to foster community development and, second, to monitor those effects. On a smaller scale, Keith Hampton and Barry Wellman studied the impacts of high-speed internet saturation in “Netville,” a suburb in Toronto, Canada.<sup>34</sup> This “smart community” of 109 single-family houses was unique in 1997 for its universally available broadband network when most Canadian connections at the time were of the dial-up variety.<sup>35</sup> Researchers of both communities found that the networks improved or grew local social connections and that access to previously unavailable information grew nearly exponentially during the period of the projects’ implementation.

During the same period in Indonesia, however, the possibility of establishing such CBISPs was curtailed, first, by the government’s initial reticence toward accommodating private Internet Service Providers (ISPs), followed by ISPs’ prohibitively expensive cost once they became available in 1995, as well as the general

<sup>32</sup> Glenn van Zutphen, “Mayor Ridwan Kamil’s Bandung Embraces Digital Life,” *The Magazine*, May 17, 2017, <https://www.siemens.com/customer-magazine/en/home/cities/mayor-ridwan-kamil-s-bandung-embraces-digital-life.html>

<sup>33</sup> See: Andrew Cohill and Andrea L. Kavanaugh, eds., *Community Network—Lessons from Blacksburg, Virginia* (Boston: Artech House, 1997); and John M. Carroll and Mary Beth Rosson, “Developing the Blacksburg Electronic Village,” *Communications of the ACM* 39, 12 (1996): 69–74.

<sup>34</sup> Hampton and Wellman, “Neighboring in Netville,” 277–311.

<sup>35</sup> Hampton and Wellman, “Neighboring in Netville,” 11.

unavailability of landlines for home-based dial-up connections. As mentioned earlier, the problem of meeting the growing demand for internet connectivity was met mostly by the mushrooming of *warnets* throughout the country. By 2008, the growing internet needs of many Indonesians were already being met by the overlapping accessibility of *warnets* and mobile data. Yet between roughly 2008 and 2014, Indonesia saw the emergence of its own variety of CBISP: the internet *kampung*.

In Indonesia, *kampung* is a term that designates the overlap of small-scale administrative units and the communities that inhabit them, especially in urban areas.<sup>36</sup> Administratively, the country is divided into progressively smaller units, cascading down from the apex, nation (*negara*), as follows: provinces (*provinsi*), regencies (*kabupaten*), and cities (*kota*). At the smallest scale, cities and villages are subdivided into numbered administrative units called *Rukun Warga* (RW, lit. “harmonious citizens”; citizens association), which contain several smaller units called *Rukun Tatangga* (RT, lit. “harmonious neighborhoods”; neighborhood association).<sup>37</sup> RTs and RWs are both sometimes referred to as neighborhood associations or neighborhood institutions. They often provide the geographic boundaries for *kampungs*, which are typically regarded as traditional community units of closely knit neighbor and kin networks. It has been estimated that approximately 60 to 70 percent of residents in Indonesian cities live in urban *kampungs*.<sup>38</sup>

In Java, RTs may be characterized as urban neighborhoods composed of roughly twenty to forty households,<sup>39</sup> which are often locally treated as coterminous with the notion of *kampung*. Usually, one RT member is elected to represent each RT (*kampung*) to the RW above them. Pragmatically designed for the efficient administration of many levels of society, stretching all the way up to the *negara*, the RT is part of a system of local administration that has, over time, gained a sense of traditional cultural authenticity associated with the past.<sup>40</sup> *Kampung* residents are typically regarded by other Indonesians as lower class, “small folk” (*wong cilik*), who rely on cultivating systems of neighborliness and mutual help (*gotong royong*) to navigate the daily challenges of urban poverty.<sup>41</sup> Part of a deeply ingrained moral economy of cooperation, the concept of *gotong royong* urges *kampung* members to share resources and assist each other in community projects as well as ritual and ceremonial preparations (such as for funerals or weddings).<sup>42</sup> According to some residents of Kampoeng Cyber, outsiders who do not live in these informal urban settlements often

<sup>36</sup> John Sullivan, “Kampung and the State: The Role of Government in the Development of Urban Community in Yogyakarta,” *Indonesia* 41 (April 1986): 63.

<sup>37</sup> Jan Newberry, *Backdoor Java: State Formation and the Domestic in Working Class Java* (Peterborough: Broadview Press, 2006), 35.

<sup>38</sup> Markus Zahnd, “Traditional Urban Quarters in Semarang and Yogyakarta, Indonesia: Potential for Innovative Use of Urban Design for New Quarters in Indonesian Cities Based on Historical and Traditional Aspects” (paper presented at iNTA’s second International Tropical Architecture Conference, Yogyakarta, Indonesia, April 3–6, 2006), 2.

<sup>39</sup> For this study, a household is defined as a group of residents living within the same house. The group is headed by one household member who is usually (but not always) the eldest able-bodied male. Many houses in urban *kampungs* include more than one household. In Kampoeng Cyber in 2013–14, there were forty-four households.

<sup>40</sup> John Pemberton, *On the Subject of Java* (Ithaca: Cornell University Press, 1994).

<sup>41</sup> Sullivan, “Kampung and the State,” 75.

<sup>42</sup> Sullivan, “Kampung and the State,” 71.

negatively perceive *kampungs* as crowded slums. By comparison, *kampung* residents tend to romanticize their collective living arrangements, which they contrast to the “individualistic” and “selfish” (*egois*) lifestyles of middle- or upper-class urbanites. In the post-Suharto period, the RT system has retained its affective association with a sense of “home community” that is based on the *kampung*’s structures of mutually supportive neighborly relations.<sup>43</sup> The Indonesian state continues to encourage RT residents, or neighborhood blocks, to maintain a sense of community with the overall objective of facilitating the RTs’ governance.<sup>44</sup>

In contrast to Indonesia’s typical urban *kampungs*, I contend that internet *kampungs* stand out because of their commitment to developing public internet access. In a sense, they act as an Indonesian version of the abovementioned CBISPs. Typically located in urban areas, especially in Java, internet *kampungs* include at least one RT and sometimes consist of entire RWs (which are made up of several RTs). What distinguishes these neighborhoods from typical *kampungs* is, one, their explicit commitment to the achievement of community-wide internet literacy and/or saturation; and, two, the production and expression of a collective identity associated with this goal. Although there are yet no studies that show the number of Indonesia’s internet *kampungs*, I have been able to observe or trace at least five cases in urban central Java, all of which made their initial appearance in the period between 2008–13. While this number is relatively low compared to the number of internet users and *warnets* distributed throughout Indonesia, the number of internet *kampungs* increased during this same period and I suggest that this is part of a larger process of cultural adaptation to Indonesia’s neoliberal moment.

In Yogyakarta, no fewer than three internet *kampungs* had appeared by 2013. That year, for example, Suronatan Digital Village (SDV) was chosen by the government of Yogyakarta Special Region (Daerah Istimewa Yogyakarta, DIY) to host the city’s first Telkom-sponsored Wi-Fi pilot project. As part of Telkom’s broader commitment to link Indonesia’s citizens to global information networks, twenty-nine Wi-Fi hotspots were installed in the neighborhood, at a cost of only 1,000 Rp (approximately ten US cents) for twenty-four hours.<sup>45</sup>

In 2008, another internet *kampung* sprang up in Surakarta, a city located two hours away from Yogyakarta. Wirengan Internet Community (WIC) was initiated by a committee of residents who were familiar with the necessary technology, and by 2014 WIC had grown to a network of thirty interconnected houses. Their objective had been to develop community relations by encouraging a sense of *kebersamaan* and to educate the community on the value and use of this technology.

<sup>43</sup> Sullivan, “Kampung and the State,” 63.

<sup>44</sup> Sullivan, “Kampung and the State,” 80.

<sup>45</sup> Several years ago Telkom adopted a “mega project” to “make Indonesia a global gateway for telecommunications traffic” by linking its underwater cable network to those of Europe, the United States, and South East Asia. That is part of a larger vision to turn Indonesia into “the world’s hub for telecommunication, information, media, edutainment and services” (see the *Jakarta Post*, September 1, 2014).

Kampung Blogger, located in Magelang, Central Java, was styled as an online business village (*kampungnya pebisnis online*).<sup>46</sup> Started by a young computer enthusiast in 2008, Kampung Blogger grew out of his desire to make a living online. After learning effective internet sales and business techniques, he started a nonprofit organization in Magelang, his home city, to teach his friends, neighbors, and other interested parties how to establish a successful online business. The Kampung Blogger website claims to have assisted up to three thousand successful online business owners scattered throughout Indonesia.<sup>47</sup>

The growth in the popularity of internet *kampungs* indicates a shifting relationship in Indonesia between ICT infrastructure and development goals. As the country moves towards prioritizing internet access as a broad development strategy, individual neighborhoods are adapting by initiating their own grassroots projects to advance their collective development objectives, such as improved online business opportunities. A large part of this process has involved an internal process of cultural legitimization, whereby Javanese *kampung* communities frame their desires for neighborhood internet saturation and internet-use patterns using a logic of traditional Javanese culture. This will be expanded upon in later sections.

### Kampoeng Cyber

This section will focus on Yogyakarta's Kampoeng Cyber as an example to illustrate the significance of the narrative aspects of the development discourse that surrounds internet *kampungs* in Indonesia. Kampoeng Cyber was the unofficial name accorded by residents to RT 36, the neighborhood of about 150 people located in the southwest section of the Taman Sari settlement area near the Sultan's palace in Yogyakarta, where I conducted my ethnographic research between 2012–14.<sup>48</sup> As an internet *kampung*, Kampoeng Cyber was more than just a neighborhood saturated with internet connections. More importantly, residents claimed to have developed a collective identity around their desires for internet-based socioeconomic and cultural development. I will show that the success of Kampoeng Cyber's internet-based development rested equally on its residents' ability to build a public narrative about its community-led initiative as it did on the "built networks"<sup>49</sup> of cables and wires throughout the neighborhood.

Residents used the story of how they developed their internet *kampung* to attract the attention and support of government and corporate sponsors. Starting in 2009–10, key residents developed a narrative that Kampoeng Cyber was a coherent, self-sustaining, entrepreneurial community that owed its success to grassroots internet adoption. This "story" was frequently repeated to the media, academics, and other visitors by Kampoeng Cyber's two key figures—RT 36's elected community leader and his neighbor, who had developed the original idea to connect the neighborhood.

<sup>46</sup> "Berkunjung ke Kampung Blogger di Magelang," *Majala Feature Indonesia: Anything You can Find in Indonesia* (blog), December 11, 2014, <http://indonesia-feature.blogspot.ca/2014/12/berkunjung-ke-kampung-blogger-di.html>

<sup>47</sup> <http://amongblog.com/>

<sup>48</sup> As one would expect, the population fluctuated slightly from year to year.

<sup>49</sup> Larkin, "The Politics and Poetics of Infrastructure."

Residents who benefited economically from online commerce (described in more detail below) had a stake in demonstrating evidence of the internet's positive impacts on their community to outsiders, such as local government leaders, who could potentially endorse and financially support their otherwise independent community endeavour. Through the testimonials of residents who were positively affected by the internet, Kampoeng Cyber was represented as an idyllic and "traditional" *kampung* that thrived on the collective adoption of new technology. Though the narrative tended to elide tensions or contradictions for the benefit of the audience, this does not mean that the story is disingenuous or falsely construed to produce favorable opinions about the community. Rather, it demonstrates that understanding how the "politics and poetics"<sup>50</sup> of internet access factor into community development in urban Java is equally important to the material aspects of infrastructure in improving economic opportunity.



"Welcome to RT 36 Taman Kampoeng Cyber"  
Welcome sign posted near the entrance to Kampoeng Cyber, about 2010–14  
(author's photo)

The narrative that came from Kampoeng Cyber presentations and interviews was quite formulaic. Usually delivered by the elected community leader (*ketua*) and often informally repeated by residents to visitors, the account provided the background, motivation, and effects of erecting a community-based internet network.

In his late thirties, RT 36's *ketua* (in office 2008–14) grew up in the neighborhood and was now raising his two young children with his wife in the house that he inherited from his parents. His full-time job as an IT specialist at a local university

<sup>50</sup> Larkin, "The Politics and Poetics of Infrastructure."

gave him both the skills to help and an interest in transforming RT 36—a previously anonymous neighborhood—into Kampoeng Cyber. His childhood friend and neighbor, who worked from home as a graphic designer, was also a key figure in the inception of Kampoeng Cyber. According to the two men, the graphic designer developed the original idea to connect each household to the internet, while the *ketua* supported him by encouraging residents to get involved.

In a 2018 post shared in English by the *ketua* on a Kampoeng Cyber Facebook page, the story of how the community adopted the internet is summarized as follows:

Kampoeng Cyber is an urban neighborhood located in Yogyakarta Indonesia with 143 people, which tries to make a breakthrough by creating Internet network for all members who are low and middle economic class. Kampoeng is a Javanese term, meaning a village or small neighborhood. Starting from 2008, starting with 5 people, we strived to be able to bring the internet in our community through self-help funds—with no government support. The establishment process and the introduction of the Internet was conducted in around 2 years with several challenges. Our people had no idea what we can do with the Internet as most of the villagers are low and middle economic class. Finally, in 2010, 80% of our residents in Kampoeng Cyber are already connected to the Internet as a result of the sharing installation. After that, some media exposed our existence and led to some researchers came to stay and did the ethnography projects and provided some workshops. Consequently, more people know us better and we have a lot of visitors to learn more how to create such kind of arrangement in a small community. With the existence of adequate Internet infrastructure, we expect that the potentials of entrepreneurial business can be developed better. We also expect to change the promotion strategies and sales so that it can increase the economy of the community. What we would like to solve is how the villagers understand better about the ICTs so they are able to leverage the role of the Internet to pursue IT based entrepreneurship in a not high level economy class.<sup>51</sup>

The *ketua* often explained to visitors that the name “Kampoeng Cyber” had been chosen in 2009 to make their development efforts recognizable to the public. For instance, during a February 2014 presentation to visiting students, he proposed that “knowledge [of the internet] can be used to empower citizens [and] promote the village.”<sup>52</sup> A welcome sign displaying the new name was erected and hand-painted by residents at the entrance to the neighborhood soon thereafter. Since then, residents and outsiders have referred to the neighborhood as Kampoeng Cyber. According to the *ketua*, the word “*kampoeng*” was intentionally spelled in the old, colonial style to evoke a sense of historic nostalgia that would contrast with the “modernity” of the word “cyber.”

The main elements of this description have been repeated by Kampoeng Cyber’s two key figures, and by other residents, to various audiences over the years. One of the major targets for Kampoeng Cyber’s narrative included local newspaper, radio, and

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<sup>51</sup> Taman Erte Tiga Enam Facebook page, March 9, 2018, linked to Kampoeng Cyber Jogjakarta Facebook post, 2018. The graphic designer was the *ketua*, having been elected in 2014.

<sup>52</sup> “Pengetahuan bisa digunakan untuk pemberdayaan warga, mempromosikan kampung,” from field notes.

television media. When the neighborhood's internet connectivity rates began to soar in 2009–10, the *ketua* reached out to local media to share Kampoeng Cyber's story and promote RT 36's initiative to the public. He approached a local journalist who wrote an article about Kampoeng Cyber. Aware that "the media looks for [stories] that are peculiar or unique," and especially "loves [stories that discuss] social programs and self-help [initiatives], the *ketua* emphasized these aspects in his interview."<sup>53</sup> He claimed that the article generated so much interest among other journalists that he soon began to receive dozens of requests for interviews every week. Since then, countless journalists, radio hosts, and local and international students and academics have shown interest in the neighborhood's apparently unique adaptation of internet technology. Between 2012 and 2014, I participated in or observed several journalist interviews with the community leader and other residents, four filming sessions for different television-news channels, seven interviews for undergraduate or high school student research assignments, three visits by Kampoeng Cyber residents to other neighborhoods for comparative research on how to develop their communities (*studi banding*), one university-led focus-group study, and at least thirteen visits from groups ranging in size from fifty to three hundred students involved in field trips. The latter consisted of high school, undergraduate, or technical school students from all over Indonesia who visited to learn how Kampoeng Cyber started its project, and about the social and economic effects that community-wide internet had on the lives of its residents.

Over the course of such interviews and presentations, in addition to my own conversations with residents, I was able to discern a common narrative. As the story goes, Kampoeng Cyber was the unplanned result of the neighborhood's preexisting sense of community "togetherness." According to the co-founders, RT 36 residents had long been closely knit and socially active, reflecting their Javanese heritage. They frequently participated in social initiatives, such as community clean-up efforts or leisurely neighborhood gatherings at the beach, to maintain a strong sense of closeness. The graphic designer decided to blog about those activities in 2008, stating his motivation to display the community's social and developmental *potensi* (potential), and wanting to prove to the world that even a small, otherwise insignificant *kampung* could contribute positively to society. Unfortunately, at that time he was unable to share his posts with his neighbors, because they were either computer illiterate or had no access. Circumventing this obstacle initially meant that he had to invite neighbors to read over his shoulder from his personal desktop computer. After a while, he began encouraging a few of his neighbors to purchase their own laptops instead. At the same time, the *ketua* used the neighborhood's monthly meetings to educate residents about the practicality of learning to use computers and motivated them to see the value of owning a laptop. Thus, according to the story, Kampoeng Cyber emerged slowly and naturally out of a collective desire to *maju* (move forward) or advance the neighborhood's prospects, but without specific initial plans to change the neighborhood's identity.<sup>54</sup>

When pervasive inexperience with computers and the internet threatened to derail the plans to connect neighbors, the *ketua* reportedly reserved a computer room at the

<sup>53</sup> Field notes from Kampoeng Cyber visit to a neighboring internet *kampung*, February 24, 2014.

<sup>54</sup> Eventually the blog was discontinued and disappeared when the host went bankrupt.

university where he worked to host a free week-long computer training seminar for his community. Convinced of the internet's potential to harness social good, he wanted his neighbors and friends to learn how to use the internet to improve their livelihoods. During this workshop, he taught residents computer basics and led them through the process of starting their own websites to facilitate the implementation of their business ideas. At first, only a handful of people showed any interest in computers. But as people became aware that their neighbors, with no previous computer experience, were starting their own online businesses, interest reportedly began to grow. Within about one year, one resident claimed, the neighborhood slowly began to coalesce around the desire to be "not left behind by technology" (*nggak ketinggalan jaman*<sup>55</sup>), and the path to creating Kampoeng Cyber had been laid. The story portrays how residents took their destiny into their own hands by independently (*mandiri*) transforming a previously nameless neighborhood into a well-known "cyber village" in less than two years, all without the direct support of government or corporate funds.

The *ketua* also often pointed out that another major challenge to establishing permanent internet connections in the neighborhood was the prohibitively expensive cost of individual monthly subscriptions. As mentioned above, in 2008–09, individual home internet connections were reported by residents to cost at least 150,000 rupiah (about US\$15) per month, which was unaffordable for most families, whose incomes averaged only about US\$100 to \$150 per month. Moreover, modems were notoriously unreliable and just as expensive, and smart phones had yet to dominate the market. The solution was to collaborate with Telkom, the largest telecommunications business in Indonesia, for a US\$70 per month unlimited high-speed cable internet package for the entire neighborhood. Each connected household paid an affordable 40,000 Rp (about US\$4) per month for the service. The deal required that newly subscribing households purchase their own cable, which would be connected to the network with the help of the co-founders, who were knowledgeable about the technology.<sup>56</sup>

Each time I observed one of the co-founders give a presentation to students, or be interviewed by journalists or academics, they repeated the same household-connection figures, as follows: over the course of about a year, the neighborhood went from having a handful of connections, adding one or two per month, until as many as twenty-three of the twenty-five houses in the neighborhood were connected. The only two houses that did not opt for a connection, they explained, were inhabited by elderly people with no interest in or use for the internet. These figures were displayed for audiences on a map that featured the location of each connected house and the main occupation of its residents (see graphic on next page). A version of this map was also displayed for visitors on a wall at the entrance to the neighborhood. For those who could not afford to connect—for although most houses had a connection, not every household within each home owned a computer or laptop—a free Wi-Fi connection was set up in the neighborhood guard post (known in Indonesian as *pos ronda*, or, in Javanese, as *cakruk*), a small, one-room building or dedicated space found

<sup>55</sup> Field notes, November 23, 2013.

<sup>56</sup> Residents reportedly preferred cable connections because, at the time, they were considered to provide more stable connectivity than Wi-Fi.

in most neighborhoods.<sup>57</sup> There a desktop computer and a laptop were made available to those who wished to browse the internet as they socialized with their friends in the evenings.



Map of Kampoeng Cyber representing the number of houses connected to the internet—connected houses are shown with an Internet Explorer logo  
(Image courtesy of ketua RT 36, 2018)

One of the most compelling elements of the Kampoeng Cyber narrative was the specific examples of how this community-led initiative helped to improve both the community and the lives of individual residents. In terms of highlighting improved community access to ICT, the media frequently drew on Kampoeng Cyber's stock narrative about how they had converted their guard post into a neighborhood computer room. Portrayed by residents and the media as a beacon of progress and innovation, Kampoeng Cyber's *cakruk* was often contrasted with those in other

<sup>57</sup> The guard post was usually a shed or room used by men who volunteered for evening neighborhood-watch shifts on a rotating basis.

*kampungs*, which they described as having fallen into disuse or having become nocturnal lairs for men who gambled away their wages in card games. Residents would often invite visitors and journalists to their guard post to showcase what they framed as a socially progressive conversion—a *cakruk* repurposed as a community center for information access and socialization. If a large group of students or a camera crew was expected, an announcement would be made on Facebook the night before, imploring residents to help clean up the room in advance of the visitors' arrival. With cameras rolling, residents would recreate scenes from their idealized everyday life, posing in front of the flickering computer screens as they pretended to browse websites about Javanese history or cooking recipes, smiling and sitting closely together, painting the image of a tightly knit, technologically advanced social unit for the eyes of their audience and the lenses of the cameras.

Demonstrating Kampoeng Cyber's impact on individual lives followed a similar formula. Residents reported a dramatic increase in internet access by 2010. Of twenty-four households that I surveyed in 2013, only five did not own at least one computer or tablet. Seven households had only one computer or tablet, five households had two, while seven households owned three or more. Of the five households that did not own computers, three individuals accessed the internet through their cell phones, one used the internet at the office and through *warnets*, while only one (an older woman) did not use the internet at all. In total, only five of the neighborhood's forty-seven adults whom I surveyed claimed to not use the internet.

Residents frequently credited Kampoeng Cyber for their ability to supplement at least part of their income with online business activity. For example, one young man in his mid-twenties used YouTube videos to learn the skills to create theatrical special-effects makeup, which he used to start his own online business selling handmade effects like false beards, fake mustaches, and simulated wounds. He reported to me that some of his designs appeared in 2013's big-budget Indonesian film *Soekarno*, which depicted the life of Indonesia's first president. RT 36's *ketua* supplemented his family's income by selling vintage batik cloth and other curio items to a diaspora of Javanese customers within Indonesia and overseas, while his graphic-designer neighbor received commissions through online networks. One family sold and rented audio equipment online, while another took orders for a fried-chicken catering business from their website and Facebook pages. Also, a neighborhood fishing enthusiast started a successful fishing equipment shop after tapping into a niche market he created himself by starting a fishing blog and discussion forum.

Although several families benefited economically by entering online markets, most households in Kampoeng Cyber did not produce income directly online. This is significant because neighborhood leaders were known to promote a positive narrative to garner attention, and potentially support, from outsiders, a narrative that exaggerated the economic utility of the internet for individual households. In fact, however, their story was somewhat inaccurate.

As previously stated, up until the 1990s the main economic activity reported in Kampung Taman, which had once been the administrative unit that encompassed

Kampoeng Cyber, had been “home-based industry.”<sup>58</sup> This consisted of activities like batik-making, crafts, and other forms of artistic works usually sold from home or through galleries. The 1997 economic downturn that resulted from the Asian financial crisis altered the general makeup of the local economy so that the neighborhood was forced to diversify its economic activities after its historically dominant batik-making industry collapsed. By 2011, most people in Kampoeng Cyber reported making a living in the informal sector as self-employed or small-scale entrepreneurs. Of the working-age adults who were included in the population data report for RT 36 in 2011, forty were self-employed entrepreneurs, artists, merchants, or guides who essentially relied on their business acumen and creative skills to make ends meet.<sup>59</sup> The second most important group consisted of the thirty-three adults who were employed by private companies or in the public or NGO sectors. These were people who had landed salaried positions as civil servants, teachers, nurses, or NGO workers, or who obtained wages from work in areas like local retail establishments or construction. The third group consisted of two residents who considered themselves unemployed, but who participated in various activities in the informal sector such as paid childcare or petty trade. The remaining sixty people in the data report were outside of the local workforce and consisted of thirty primary school students, six university students, thirteen “homemakers” (*mengurus rumah tangga*), seven retired civil servants, and four toddlers or infants.

Based on a survey I conducted of forty-seven adults living in Kampoeng Cyber in 2013, they took part in a variety of businesses, including the sale of fashion items like clothing and accessories, home-based convenience shops (*warung kelontong*), sound-system rental, graphic design, tour-guiding, and sewing. At least ten of the thirty informal sector entrepreneurs were engaged in some form of online business activity, which did not exist before the advent of Kampoeng Cyber. The four people (two married couples) who were reportedly “self-employed,” meaning they had relatively large street-side shops earning higher than average revenues relative to informal-sector enterprises, relied at least partially on their online presence to make their sales.

Overall, eleven of the surveyed households were engaged in online businesses, out of a total of forty-four households in Kampoeng Cyber between 2013–14, placing online business activity at about one-quarter of all the households at the time. This was, indeed, a major accomplishment for a neighborhood that, earlier, had reported serious infrastructural and social deterioration after the economic slump, such that people who lived there felt the entire Kampung Taman area had turned into a “slum.”<sup>60</sup> Now, residents who had been almost completely unfamiliar with the internet only five years prior were rightfully celebrating the development of e-commerce in their community.

<sup>58</sup> Esti Kurniawati, “Dampak Penggunaan Internet Terhadap Kondisi Sosial Ekonomi Penduduk di Kampoeng Cyber Kelurahan Patehan Kecamatan Kraton Kota Yogyakarta” [Impact of Internet Use on Socio-economic Conditions of Residents of Kampoeng Cyber Patehan Subdistrict, Kraton District, Yogyakarta City] (undergraduate thesis, Universitas Negeri Yogyakarta, 2011), 61.

<sup>59</sup> *Data Warga RT 36 Taman Patehan Kraton Yogyakarta* (population data for RT 36 in Taman Patehan subdistrict, Kraton district, provided by one of the Kampoeng Cyber co-founders).

<sup>60</sup> Michael Romans, “Kampoeng Cyber,” *Inside Indonesia*, July 5, 2016, <http://www.insideindonesia.org/kampoeng-cyber>, accessed December 21, 2017.

What the Kampoeng Cyber narrative elides, however, is the lack of a direct economic impact from online business for three quarters of the neighborhood's households. Although RT 36 has seen a significant improvement in internet access, and certain residents were directly and positively impacted by a shift towards online economic activity, most residents continued with their non-internet-related occupations. Of the thirteen or so reported cases of online businesses from my basic household survey, only the most captivating handful of examples (noted above) were regularly included in the dominant narrative that was shared with media, academics, and other visitors.

Kampoeng Cyber was largely a symbolic representation of the developmental desires of an urban *kampung*. The community's publicly projected identity was built on an exaggerated and narrative-based scaffolding that told and retold the story of how humble, urban *kampung* dwellers had tapped into their cultural acumen to adapt modern technology to their collective development needs. In this manner, Kampoeng Cyber was orally and visually constructed for various audiences (see the discussions of murals and Facebook images, below), such as the local and national government agencies that are mandated to develop urban communities, journalists and reporters, and academics who are interested in grassroots ICT4D initiatives. For this reason, the stories of families that did not participate in the online economy were typically left out of the Kampoeng Cyber narrative. As the *ketua* explained to a visiting group of sociology students in April 2014, "I [always] recount the good [things]. There's no way I would tell about the negative [things] ... for example, about those who visit porno [sites]."<sup>61</sup> Since relaying information about Kampoeng Cyber's internal digital divide yielded nothing positive for the neighborhood, only the successful examples were emphasized to outsiders. I suggest from these findings that the significance of the internet for the development of Kampoeng Cyber lies beyond the simple economics of access. Though the establishment of universal access to the internet is an important objective for Kampoeng Cyber, the strongest catalyst for the neighborhood's development is the circulation of its narrative through Indonesia's changing development system.

### The Cultural Politics and Poetics of Internet Access

Even though most residents did not directly benefit economically from the establishment of a community-wide internet network, Kampoeng Cyber's media popularity quickly turned it into a technological sensation in Indonesia. As the neighborhood's internet connectivity reached its peak in 2010, leaders gradually shifted their attention from providing internet access to "promoting their *kampung*" (*mempromosikan kampung*).<sup>62</sup> The *ketua* and other residents who had gained internet access sought to bring public attention to the *kampung* to expand the community's economic and social opportunities. Improving the public's perception of previously shunned neighborhoods became a priority, according to the *ketua*, who feared that urban *kampungs* were too often dismissed in the popular imagination as "backward" or "underdeveloped," and therefore unworthy of intervention (e.g., investment) by local

<sup>61</sup> Field notes, April 25, 2014.

<sup>62</sup> Kampoeng Cyber presentation to visiting students by the *ketua* on February 28, 2014.

governments.<sup>63</sup> Thus, in collaboration with his co-founder, the *ketua* began to emphasize the neighborhood's collective work ethic, based on traditional Javanese values of *gotong royong* and *kebersamaan*, as being at the heart of the internet initiative's success. In blog posts written by the other co-founder, and in interviews with journalists, the partners attributed Kampoeng Cyber's success to the deep cultural roots of their Javanese community, whose potency was thought to emanate from the *kampung*'s proximity to the beacon of cultural influence that was the Sultan's palace. "Javanese tradition here is still strong," they asserted, and they credited their success to it.<sup>64</sup>

Promoting Kampoeng Cyber as a Javanese community initiative helped attract external support. At first, the *ketua* explained, the neighborhood was unsuccessful at gaining support from local government, as each of their attempts to secure funding in 2008–09 failed. On one occasion, the *ketua* claimed to have prepared and submitted a proposal to the office of the local district head (*camat*) for funds to buy secondhand desktop computers for the *kampung*'s intended community computer space, and yet were rejected despite the city's vision for transforming Yogyakarta into a "Cyber City." The co-founders also claim to have once been promised free (government subsidized) laptops by an Acer official, only to be disappointed when that promise went unfulfilled. The multiple disappointments compelled them to simply give up (*jadi malas*) on appealing to the government for help and, alternatively, committed to self-funding their activities. Yet once the *ketua* and his partner began to label their internet-access project as "Kampoeng Cyber," they explained, local government officials began to take more interest and offer support. According to the *ketua*, after the groundwork was laid for developing internet access in the neighborhood, "then [the project] was branded [*di branding*] to become Kampoeng Cyber RT 36. From there came appreciation from the government. It was considered 'best practice.'"<sup>65</sup> One resident from a neighboring internet *kampung* attributed Kampoeng Cyber's uniqueness to the "*merek*" (brand) they had developed to change perceptions of their *kampung*, rather than to the number of internet connections that had been achieved.<sup>66</sup> As Indonesia shifted toward intensified neoliberalism, Kampoeng Cyber seemed to gain more momentum in community development discourse through its *representations* of community-based internet access than it did through actually providing new infrastructure.

This shift brought Kampoeng Cyber in line with Indonesia's changing political economic structure, which has rewarded communities for "standing out" with regard to their cultural and traditional uniqueness. Elizabeth Pisani makes a similar argument in her 2014 book *Indonesia Etc.: Exploring the Improbable Nation*. In it, she treats the apparent explosive revival of ethnic ritual (*adat*) in post-Suharto Indonesia as a form of adaptation to the national decentralization program.<sup>67</sup> In 2001, fearing the "balkanization" of Indonesia after the collapse of Suharto's centralized power

<sup>63</sup> From my first interview, in 2012, with the Kampoeng Cyber *ketua* (translated in person by an undergraduate student from Universitas Gadjah Mada). The interview was later transcribed in full.

<sup>64</sup> "Di sini itu masih tradisi jawanya masih kuat"; interview with *ketua* RT 36, June 2012.

<sup>65</sup> Interview with *ketua* RT 36, June 2012.

<sup>66</sup> Interview with residents of neighboring *kampung*, November 18, 2013.

<sup>67</sup> Pisani, *Indonesia Etc.*, 61.

structure, and predicting greater efficiency in the allocation of resources and services by “bring[ing] the government ‘closer to the people,’”<sup>68</sup> Indonesia began a rapid redistribution of power and responsibility from the center to districts. Decentralization began to take effect in 2004 after citizens were allowed to elect directly their district heads.<sup>69</sup> In a process that Indonesians often refer to as “blossoming” (*pemekaran*), the number of provinces and districts has since increased substantially: by the year 2012, Indonesia had added ten provinces (for a total of thirty-four) and 356 new districts (for a total of 509).<sup>70</sup>

This has produced an economy in which being culturally unique and tradition-based is the currency that districts use to trade power and resources. According to Pisani, new districts were often granted because of perceived cultural differences in geographic regions. She argues that *pemekaran* was fueled by a marked trend in the revival or even (re)invention of traditions (*tradisi*), rituals, and ceremonies (*upacara*) scattered throughout the archipelago, where, for decades during the New Order, state nationalism had been prioritized over local traditions.<sup>71</sup> Costume, dance, celebrations (*pesta*), and other customs were revived in the early 2000s to not only accompany local politicians during their quests for election as district head, but as a foundation upon which to make collective claims for the creation of new districts. According to Pisani, establishing and reinforcing a local identity based on cultural heritage was one of the most effective means by which to define new districts. Showcasing *budaya* (culture) in the form of reinvented traditions became the competitive edge with which communities could vie for attention and recognition from the state. In contrast to the New Order, where aspirations toward national unity attempted to supplant the incredible cultural variation found throughout Indonesia’s more than thirteen thousand islands and over three hundred ethnic groups, the *reformasi* era launched a new focus on the particularities of local variation.

Kampoeng Cyber was well positioned to take advantage of this newfound national appreciation for ethnic revival. The community’s preoccupation with showcasing its cultural relationship to the internet was not simply an idiosyncratic response to a lack of digital infrastructure in Yogyakarta. It was, rather, consistent with a broadening trend in Indonesia that connected the politics of culture and local traditions to infrastructure access. Moreover, I posit that, in some ways, Javanese cultural practices, traditions, and rituals in Kampoeng Cyber were being prepackaged to appeal not only to the gaze of the ever-present journalist-bureaucrat-anthropologist, but also to fit neatly into the bureaucratic and corporate categories that might grant districts and communities access to otherwise scarce resources. In the current context, where government, corporate, and civic agendas for increasing internet access in Indonesia overlapped,<sup>72</sup> and where “the growing influence of a neoliberal cultural mode, characterized by the transfer of ideas about the primacy of markets and competitions

<sup>68</sup> Tim Bunnell, Michelle Ann Miller, Nicholas A. Phelps, and John Taylor, “Urban Development in a Decentralized Indonesia: Two Success Stories?” in special issue, “Decentralized Governance and Urban Change in Asia,” *Pacific Affairs* 86, 4 (2013): 2.

<sup>69</sup> Pisani, *Indonesia Etc.*, 124.

<sup>70</sup> Pisani, *Indonesia Etc.*, 124.

<sup>71</sup> Pisani, *Indonesia Etc.*, 34–35.

<sup>72</sup> Lim, “From War-Net to Net-War,” 242.

from economic to social life” led to the “commodification of cultural expression,”<sup>73</sup> places like Kampoeng Cyber managed to stand out and tap into both government and corporate resources. Ostentatious displays of what were often perceived to be Javanese traditional values—such as *kebersamaan*, *tradisi*, and *kerja bakti* (community service)—attracted the attention of potential corporate and government sponsors, which will be discussed in further detail below.

### Representing Tradition

John Pemberton has argued that the things anthropologists studying Java had conventionally associated with culture, such as ritual, customs, and traditions, were political productions deployed to create the impression of an “underlying, stabilized cultural order.”<sup>74</sup> He saw rituals such as weddings not as the essential ingredients of an *a priori* cultural foundation, but the political fabrications of Javanese rulers attempting to redefine themselves and their subjects in the face of totalizing Dutch control in the eighteenth and nineteenth centuries, and later the governmental machinations of the New Order regime that bolstered its political clout with notions of cultural legitimacy.<sup>75</sup> Irrespective of the debate about the political versus “authentic” roots of Java’s “culture,” *budaya/kebudayan* (culture) and *tradisi* have remained compelling forces in the lives of regular Javanese people, such as those residing in Kampoeng Cyber, who value tradition in the sense that their ambitions and collective actions are founded in a cultural inheritance (*warisan kebudayan*) that transcends them.

Along the narrow alleyways that meander through Kampoeng Cyber are painted colorful murals depicting scenes of traditional Javanese life interspersed with images associated with high-tech modernity. The hand-painted scenes, which were created by resident artists as part of a corporate-sponsored competition (described below), depict the neighborhood’s staunch commitment to preserving Javanese and Indonesian values, such as community togetherness and mutual cooperation (*kegotongroyongan*), while embracing the desire to “not be left behind by the modern era” (*tak mau ketinggalan dengan jaman sekarang*). The message that these murals—and the Kampoeng Cyber narrative—relate is that culture and technology are not mutually exclusive. Against frequently vocalized fears among Javanese *kampung* dwellers that the proliferation of new technology, like the internet, threatens their cultural heritage, Kampoeng Cyber’s key stakeholders emphasize the neighborhood’s ability to harmonize the coexistence of culture and technology.

In the winning mural (see next page), Facebook creator and CEO Mark Zuckerberg gives a thumbs-up in a scene filled with juxtaposed images associated with “tradition” and “modernity,” including characters dressed in traditional Javanese garb navigating social media, with a well-known, traditional shadow-puppet character floating above the scene holding a selfie stick. This mural is part of a series of

<sup>73</sup> Edward Aspinall, “A Nation in Fragments: Patronage and Neoliberalism in Contemporary Indonesia,” *Critical Asian Studies* 45, 1 (2013): 31–32.

<sup>74</sup> Pemberton, *On the Subject of Java*, 14.

<sup>75</sup> Pemberton, *On the Subject of Java*.

paintings that was sponsored in 2015 by the AJE soft drink company, which is known for its “Big Cola” brand.



This artwork depicting Kampoeng Cyber won the “Big Cola” mural competition in 2015  
(courtesy of *ketua* RT 36, 2018)

As part of the competition to produce the best murals, artists, who were residents of Kampoeng Cyber, were required to incorporate three elements into their proposed images: information technology, Javanese culture, and Big Cola. When the competition ended, Kampoeng Cyber was adorned with over a dozen new paintings portraying the *kampung*’s collective identity. (The new murals replaced old, faded wall art that residents had painted with their own initiative and funds in 2010.) The themes of “tradition” and “information technology” mandated by the contest rules helped define Kampoeng Cyber as culturally outstanding.

In addition to the murals, the *ketua* and his neighbor also produced and distributed myriad paraphernalia featuring a Kampoeng Cyber logo, including mugs, T-shirts, and DVDs featuring group photographs of community members. The logo (illustrated on next page) was conceived and voluntarily designed by the resident graphic designer. As mentioned above, the words “Kampoeng Cyber”—spelled in the old colonial style such that the word “kampoeng” elicited a sense of nostalgia for a traditional past—were made to appear as though they had been written in traditional Javanese script, thus contributing to a sense of cultural heritage.



Kampoeng Cyber logo in 2014 (courtesy of *ketua* RT 36, 2018)

Overall, the tropes that were repeated in Kampoeng Cyber's murals rested on the imagined contradiction between technology and tradition. It involved emphasizing the indispensability of community, rooted in an imagined Javanese past, as the basis for the sound adoption of technology as a tool for *kampung* improvement. Part of Kampoeng Cyber's public appeal arose from residents' ability to showcase synergy between typically dichotomized notions of tradition and technology (*teknologi*). For many Indonesians, including Javanese, *teknologi* is defined in opposition to its impact on *budaya* or *kebudayaan*. Those who are technologically literate (*melek teknologi*) or who "know about (or understand) technology" (*tau tentang teknologi*) are "modern" (*moderen*) and forward-looking, while those who are unfamiliar with technology are often derided for being "backward" and out of touch with modernity. Access to and familiarity with technological devices, such as mobile phones, computers, and tablets, signal social and economic status. Anyone who lacks fluency with, or rejects, such technologies could be scorned for their bucolic tendencies as (backward) "villagers" (*wong ndeso*).

Paradoxically, the same Indonesians who were thought to master such devices were sometimes criticized for corrupting the purity of their culture, which was often equated with tradition. It was the opinion of one middle-aged married man in Kampoeng Cyber whom I interviewed that "the internet can ruin culture" (*internet bisa merusak kebudayaan*). He was concerned about what he perceived to be a growing overdependence on digital technologies, which he thought impeded the inherent Javanese need to be social (*face-to-face*). With the arrival of the internet and social media, he saw the erosion of cultural values rooted in Javanese traditions. He believed that these external influences were encouraging un-Javanese behavior, such as the mixing of genders, poor linguistic etiquette, and unrefined manners. "I don't want to know how to use the internet" (*aku tidak mau tau internet*), he said, aligning himself with popular local views on the incompatibility of *tradisi* and *teknologi*.

Kampoeng Cyber circumvented this conceptual tension by encouraging residents to heed traditional values (*nilai-nilai tradisional*) when engaging with modern technologies that might threaten to disrupt the balance of Javanese community life. The *ketua*, for instance, urged residents to keep their computers in family spaces rather than in private rooms. This would permit everyone access under the watchful supervision of family members, rather than in private rooms where access to, for example, pornography might displace purportedly Javanese values of modesty and

decorum. Playing games or browsing Facebook were discouraged when others were present, as those activities impeded social time with family and neighbors and could lead to the development of individualistic (*individualis*) and selfish (*egois*) behavior. This type of conduct was often condemned as a Western influence and stemmed from people being more concerned with being *moderen* than with taking part in local community, where the heart of tradition was thought to lie.

This conceptual opposition between *teknologi* and *budaya* was axiomatic in central Java. The work that Kampoeng Cyber residents put into challenging this cultural assumption drew the attention of the public precisely because it challenged common sense. In a place where technology was understood as an external threat to cultural preservation, making public claims that the internet and Javanese culture could complement each other to improve lives was bold and captivating. As word began to spread about how this neighborhood had been successful in integrating the internet into their community without sacrificing traditional values, Kampoeng Cyber gained traction as a viable community-development model.

The murals' images representing the syncretism of Javanese customs, such as batik painting and traditional royal garb, accompanied by symbols of modern technology, like the logos of social networking sites that were painted throughout the neighborhood, signaled that the internet was not only the infrastructure through which meaning (content) flowed, but also acted as a symbolic mediator for collective ideas about what it meant to be part of a "modernizing" Javanese neighborhood. For those who supported the vision of Kampoeng Cyber, developing as a community meant retaining "traditional" customs while embracing new technologies. Visitors to Kampoeng Cyber were often attracted to the neighborhood by the perceived contrast between technology and tradition that was displayed in the *kampung's* murals and stories. One student explained that their class had chosen Kampoeng Cyber as the site for their field trip because they were intrigued by the community's ability to merge the two seemingly incompatible concepts of culture and technology. Although the students believed that "culture and the internet have very different paths" (*budaya sama internet, jalurnya sangat berbeda*), they were impressed by the ability of Kampoeng Cyber residents to embrace their culture without neglecting the importance of the internet to their own development, stating that "the people here are quite cultural, but the internet has not been left behind" (*orang sini lebih ke budaya tapi internetnya tidak ketinggalan*).<sup>76</sup>

In Kampoeng Cyber, the projected element of uniqueness was not only its unusually high level of internet penetration, but its professed ability to maintain cultural values in the face of modernizing technology. In large part, this claim rested on Kampoeng Cyber's commitment to *gotong royong*, based on a sense of kinship-like closeness among neighbors. "*Gotong royong*" is often used to denote acts of cooperation by community members in pursuit of a shared goal. The *ketua* asserted that Kampoeng Cyber was erected through such mutual assistance, as residents voluntarily pooled their resources and skills to wire the neighborhood. "*Gotong royong ... that's the culture here,*" he explained. "*Whatever our common interests ... we achieve them*

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<sup>76</sup> Quoted material from field notes, February 19, 2014.

together. And that includes if there are programs that have costs ... we all contribute.”<sup>77</sup>

In Indonesia, *gotong royong* has long been believed to have cultural origins. These perceived roots have served to legitimize national policies and programs that have sought to penetrate at the village, district, and regional levels. Yet some have proposed that *gotong royong* has become a political tool, too. John Bowen argues that while there was often a genuine cultural basis to the local adoption of the term “*gotong royong*,” its ubiquitous relevance to national social and political affairs speaks to its appropriation as a device to bridge the vertical gap between local community and state affairs.<sup>78</sup> During the Old Order (1945–66), *gotong royong* represented for Sukarno, Indonesia’s first president, “an emblem of the Indonesian nation as an active joining together of opposites.”<sup>79</sup> For Sukarno, *gotong royong* was an efficient foundation on which to unify an ethnically, culturally, and religiously disparate agglomeration of islands into a strong nation forged on the spread of unifying values. By contrast, the New Order was focused less on strengthening the notion of a unified nation as it was on magnifying the powers of the state at the local level, especially through the implementation of top-down development programs.<sup>80</sup> By appealing to *gotong royong* at the village level, the state attempted to legitimize its funneling of village labor into massive development programs without compensation. Since *reformasi*, the notion of *gotong royong* continued to inspire ideas of collective spirit and mutual assistance at the national and local levels. However, in the post-Suharto era, in Yogyakarta’s *kraton* district, *gotong royong* took on strong connotations of particularized local traditional value that was set conceptually against the threatening and flattening forces of ethnic assimilation (nationalism) and urbanization (which was seen to erase or homogenize local values). For Kampoeng Cyber, *gotong royong* was seen as a practice that encouraged close relations among residents and prevented them from individualistic or selfish Western behavior, especially in a context where internet and other ICTs were seen as threats to social cohesion based on face-to-face sociality.

This value was repeatedly represented in the Kampoeng Cyber narrative, by its murals and online images, and in interviews and presentations made to media representatives and researchers. For example, in a Kampoeng Cyber Facebook post shared by the *ketua* in 2014, residents are shown smiling as they work together to collect the neighborhood garbage, filling in voluntarily for the regular trash collector who had fallen ill. The image, whose caption reads “Let’s go, time to clean!! (Trash emergency, bcs the garbage collector is sick),” portrays Kampoeng Cyber as a tight community exercising its Javanese value of *kebersamaan* through the practice of *gotong royong*.

When the notion that culture may have political value is applied to Kampoeng Cyber, it becomes evident that its residents were not simply and unconsciously applying their long-standing traditional values to the ways in which they engaged with the internet and social media. Residents actively and explicitly appealed to *tradisi* to

<sup>77</sup> Interview with *ketua* RT 36, June 2012.

<sup>78</sup> John R. Bowen, “On the Political Construction of Tradition: Gotong Royong in Indonesia,” *The Journal of Asian Studies* 45, 3 (1986): 545–61.

<sup>79</sup> Bowen, “On the Political Construction of Tradition,” 7.

<sup>80</sup> Bowen, “On the Political Construction of Tradition,” 9.

add cultural value to otherwise mundane applications of modern technology. The *kampung* used the narrative produced through the repetitiveness of media interviews and images to garner support among visitors and observers who became consumers of a cultural ideal. That ideal consisted of a self-empowered grassroots community forged from inherited cultural values. The existence of Kampoeng Cyber was proof to outsiders that the urban *kampung* could develop itself without external support, which thus transformed it into an appealing site for intervention. The materialization of this ideal became the currency with which residents, some more than others, could negotiate access to an increasingly competitive market where cultural particularity translated to social, economic, and political gain.



Mark Zuckerberg (left) poses with Kampoeng Cyber's *ketua* in 2014  
(courtesy of *ketua* RT 36, 2018)

The effects of Kampoeng Cyber's accumulated attempts to publicize their neighborhood through the media eventually culminated in tangible returns for the community. In October 2014, for instance, Mark Zuckerberg personally paid an informal visit to Kampoeng Cyber after hearing about the "tech-savvy-yet-traditional community" from a local tour guide. According to the *ketua*, Zuckerberg was impressed by what he saw after having received a tour of the neighborhood, and allegedly pledged to assist with Kampoeng Cyber's objectives however he could.

Not long after that visit the photographs of Zuckerberg touring Kampoeng Cyber made local and national news, and the newly elected *ketua* was subsequently invited to participate in a segment on a popular Indonesian talk show, *Hitam Putih* (Black and

White). The publicity that Kampoeng Cyber received from having one of its residents appear on this show yielded several sponsorship opportunities that otherwise might never have presented themselves. The indifference that had met Kampoeng Cyber's previous attempts to secure government development funds eventually dissipated. By 2014, many sponsorships and donations were being proffered from various sources. For example, Big Cola offered 100 million rupiah in 2015 (US\$10,000) unrelated to the mural contest, the Ministry of State Owned Enterprises (BUMN) gave 13 million in 2015 (US\$1,300), and another 10 million (US\$1,000) was collected from "Facebook friends" in 2016. In more regular installments, the community received gift baskets and small donations from students and guests who visited Kampoeng Cyber for presentations, and academics and foreign researchers also shared modest donations either in the form of gifts, cash, or both.

Support also began to arrive in the form of partnerships, cooperation, and knowledge-sharing with various government agencies and corporations. For example, in 2015, everyone living in Kampoeng Cyber was invited to Jakarta to visit the Ministry of Information and Communication (Kominfo) and Indosat (a telecommunications company) to exchange ideas and information about how to develop more formal relationships among them. Those residents who attended were introduced to Pak Rudiantara, minister of communication and informatics, who began to take interest in Kampoeng Cyber after he heard about Mark Zuckerberg's 2014 visit there. "I was ashamed in comparison to the Facebook 'boss' for not having time to go to Kampung Cyber Yogyakarta. And yet he [Zuckerberg] had been there," he explained as he greeted the group of a hundred or so Kampoeng Cyber residents during their 2015 visit to Kominfo.<sup>81</sup> He promised to visit Kampoeng Cyber in the coming month to learn more about the neighborhood, which he did. Thereafter, Kampoeng Cyber residents received semi-regular invitations from the upper echelons of the Indonesian and local governments to share their knowledge and experience as, effectively, a "smart community." By 2016, even Vice President Jusuf Kalla had scheduled a visit to Kampoeng Cyber. That visit, unfortunately, was cancelled the day of the event, but its potential magnitude reflected the extent to which Kampoeng Cyber had captured the public imagination and the importance it was gaining for influencing Indonesian governance and development models.

### Symbolic versus Technological Infrastructure

Kampoeng Cyber highlights the importance of understanding the full social context of infrastructure access in developing communities. From a material perspective, achieving the development imperative of increasing internet access made Kampoeng Cyber unusually successful. More than 80 percent of the community gained regular and reliable access to the internet while neighboring communities and, indeed, much of the nation, were struggling to connect. Yet the most significant success for Kampoeng Cyber lay in the ability of its key stakeholders to leverage the symbolic value of internet saturation to gain external support. Kampoeng Cyber did

<sup>81</sup> "Warga Kampung Cyber Taman Sari Berkunjung ke Indosat dan Kominfo," *Koran Merapi*, Jakarta, June 17, 2015.

not gain public favor just because most of its residents were internet literate. Visitors flocked to the neighborhood because the narrative Kampoeng Cyber's residents circulated about themselves aligned with the broader cultural shifts in Indonesia's development trends. At a time when ministries responsible for national development foresaw a growing role for ICTs in the economy, Kampoeng Cyber wired most of its residents to the internet. As community-driven development began to replace the centralized, top-down models of the Suharto years, Kampoeng Cyber showed that communities could wire themselves. And, finally, Kampoeng Cyber residents demonstrated that new technologies, often portrayed by mainstream media to be a threat to cultural and social health, could be adapted through a local cultural lens and coaxed to coexist with traditional values and customs.

Even though only about a quarter of Kampoeng Cyber's households developed online businesses, the rest of the neighborhood eventually benefited from the increase in external support from government and corporate agencies. As donations flowed in, they were redistributed to the community in the form of collective projects that were meant to develop the whole neighborhood. For example, after my fieldwork ended, a new community meeting space was erected in a local studio that was renovated using Kampoeng Cyber funds. While providing access to the internet was crucial to improving internet literacy and reducing the digital divide in Kampoeng Cyber, it was the work of *representing* that progress to the outside world that drew the resources necessary to benefit the whole community. Through a consistent narrative and visual queues, residents framed their approach to internet connectivity as culturally authentic and desirable. Moreover, Kampoeng Cyber demonstrated the ability of a cultural community to initiate its own development, and thus earn whatever public and private external support is thereafter available. Local and national government agencies, adhering to the neoliberal logic of community self-development, invested in their citizens' demonstrated empowerment, while corporations capitalized on the community's development to procure new spaces for advertising and promotion. For Kampoeng Cyber, the symbolic infrastructure of the internet held more sway than the technological infrastructure the community sought to master.

