

**Imagined Facebook: An Exploratory Study of Non-Users' Perceptions of Social Media in Rural Zambia**

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**Abstract**

This paper describes an exploratory study of Facebook non-users living in rural Zambia. Drawing on evidence from 37 group interviews with mobile phone owners, we discovered that the majority of our participants were aware of, or ‘imagined’ Facebook, despite never having seen or used the site. Our analysis of how participants perceive Facebook suggests that they are interested in the communication and income-generating possibilities access to the site may provide, but that barriers prevent them from acting on these interests. This study contributes to social media research by making visible the experiences of a population whose non-use of information and communication technologies (ICTs) results from economic, infrastructural, and linguistic sources, as well as from other, hitherto less-explored areas. We discuss the practical significance of these findings, offer future research suggestions, and comment on what our respondents have not yet imagined about Facebook.

**Keywords**

Africa, Zambia, Facebook, mobile phones, non-users, non-use, qualitative research

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**1. Introduction**

Collectively, media scholars have developed a rich and thorough account of the social practices of, motivations for, and societal ramifications of using social media, such

as Facebook (Ellison, Steinfield et al. 2010; Nadkarni and Hoffman 2012; Caers, De Feyter et al. 2013). However, Facebook non-users—particularly those living outside of the United States or other developed countries, and who may be unaware of what exactly Facebook (as well as the broader Internet) is—remain an understudied social group, whose absence from prior studies is consistently described as a problematic limitation of social media research (boyd and Ellison 2007; Caers, De Feyter et al. 2013; Lampe, Vitak et al. 2013). Despite some narrowing of the digital divide between so-called developed and developing countries, it is estimated that 4.4 billion people worldwide do not use the Internet or its accompanying features, including social media (McKinsey & Company 2014). Yet, it is this largest segment of the world’s population that Facebook’s Chairman and CEO, Mark Zuckerberg (2013), wants to transform into users, by providing them with Internet access via his ambitious Internet.org project. The goal of this partnership between the popular social media site and seven mobile phone companies is to bring Internet access (and therefore, social media) to less developed countries by making it affordable and by building more efficient mobile applications. These include ‘Facebook Zero’ (introduced in 2010)—a stripped-down, non-data-intensive, primarily text-based version of the site—designed for use on the basic and feature mobile phone models that are most commonly owned and used in countries in sub-Saharan Africa, particularly in rural areas (Crandall, Otieno et al. 2012).

Substantial debate exists—and will likely continue to exist—as to whether Internet.org is motivated by the altruistic desire to alleviate global poverty by bringing the Internet to the world’s poorest regions, or by the potential revenue boost of turning Facebook non-users into users (and thereby increasing the market to which Facebook’s advertisers have access)(Best 2014; Toyama 2014). However, missing from this debate are non-users’ perceptions, beliefs, or imaginings about the popular social networking site. There are considerable conceptual, practical and methodological reasons for understanding such populations’ current perspectives. These include greater knowledge of the factors which lead people to accept or reject a new technology, the importance of integrating non-users’ perspectives into site design, and the moral stance that people should have an active role regarding the introduction of social media into their own lives.

This paper contributes to addressing this gap by investigating disenfranchised populations whose non-use of information and communication technologies (ICTs) results from “economic, social, infrastructural, geographical and other sources” —in particular, a population which Satchell and Dourish (2009) describe as “one of the clearest—and yet least observed—areas of non-use.” More specifically, we studied an economically disadvantaged and geographically remote population living in rural Zambia, a social group which does not yet use the Internet.

More affordable and advanced mobile technologies, paired with the launch of Third Generation (3G) mobile broadband service and Zuckerberg's efforts to make using Facebook free throughout Zambia (Honan 2014), have contributed to growing use of the site in the country's capital, Lusaka, and in its other major cities, but not yet in the country's rural areas where. As with other countries in sub-Saharan Africa, nearly 80% of Zambia's residents live in rural areas where employment opportunities (other than small-scale subsistence agriculture) are few; paired with the poor technical infrastructure, this contributes to the technological disenfranchisement that has resulted in non-use of some, but not all, new media technologies (Internet World Statistics 2014).

Mobile phones are present in rural areas—as is increasingly the case throughout the African continent (Aker and Mbiti 2010)—and an estimated 71% of Zambia's population are mobile phone subscribers, a rate that is higher than the African average of 65% (Crandall, Otieno et al. 2012). Relatively high mobile phone ownership among a disenfranchised population, growing awareness of Facebook, and the introduction of Facebook Zero (Mupeseni 2013), in the country make Zambia an excellent site to explore these research questions: Are disenfranchised populations aware of Facebook and, if so, how do they learn about the site? What are non-users' imaginings of Facebook? And what can these interpretations tell us about the possible future adoption of social media?

The rest of this article is structured as follows. First, we situate our study within the larger context of ICT non-use studies and prior studies of Facebook use in developing countries. Then we then describe our exploratory research design, and present the findings that are structured around these topics: learning about Facebook, perceived benefits of joining the site, and challenges to doing so. Finally, we discuss the practical significance of these findings, comment on what our respondents have not yet imagined about Facebook, and offer future research suggestions.

## **2. Related work**

Investigating how populations use social media—in particular, Facebook—is an ongoing project in the fields of information studies, human-computer interaction (HCI), and computer-supported cooperative work. These projects have shown positive outcomes come from using the site, including increases in social capital (Ellison, Steinfield et al. 2007; Ellison, Steinfield et al. 2010); however, a limitation of these and other studies of Facebook is that they are typically based on samples of U.S. university students (Caers, De Feyter et al. 2013). Caers *et al.* (2013) ask social media scholars to expand their research to include non-students living in other countries. Likewise, boyd and Ellison (2007) write that scholars’ “limited understanding of who is and who is not using these sites (...) especially outside of the U.S.” is a shortcoming of these studies, and encourage researchers to qualitatively investigate populations that are more “difficult to access.” In response to

these critiques, researchers have expanded the scope of their interests to include studies of Facebook non-use, and of social media use in general, in countries outside of the U.S. and Europe.

### **2.1 Social Media Non-Use**

This study extends an established body of research examining why and how people do not use ICTs, including the telephone (Kline 2003), computers (Selwyn 2006), and the Internet (Wyatt, Thomas et al. 2002). Outcomes of these studies consistently demonstrate that investigating non-users' experiences with technology usefully advances researchers' understandings about people's agency in adopting or rejecting technologies.

Early efforts to relate these findings to social media research include Hargittai's (2007) comparative study of U.S. college students who either used, or refrained from using, Facebook, MySpace, Xanga, and Friendster. More recent investigations of social media non-use include (Author, et al. 2013) study of individuals who were initially members of the Facebook, but voluntarily chose to leave it. Motivations for leaving the site ranged from concerns about privacy, to decreased job productivity as a result of spending too much time on the site. Portwood-Stacer (2013) examined Facebook "abstention," focusing on how users leave the site as a means of asserting a politically-charged identity through conspicuous rejection of Facebook. Baker and White's (2011) study of Australian adolescents found that Facebook non-users preferred other forms of communication, such

as the telephone. Lampe, Vitak, and Ellison (2013) discovered that some people choose not to use the site due to the “impersonal nature of interactions” it facilitates and concerns about context collapse, or members’ inability to maintain boundaries between various dimensions of their identity; however, they emphasized that these findings—and those from other studies—cannot be easily generalized to the world’s disenfranchised populations, because the studies were done primarily on college students (the population most likely to use Facebook).

Underlying the findings in prior studies are assumptions that the antecedent conditions necessary to access Facebook—from network connectivity, to a constant supply of electricity, to the requisite financial resources to use the Internet, to the technical knowledge necessary to navigate not just the broader Internet but specifically social media—are present. Perhaps the most significant difference between individuals in these prior studies and our respondents is that, in previous studies, participants had been aware of the Internet, Facebook, and of social networking in general. This knowledge, as well as the conditions necessary to use Facebook are far from universal, and their presence—or absence—deeply affects people’s use or non-use of social media (Author et. al, 2013); according to Satchell and Dourish (2009), omitting social groups whose interactions with ICTs are affected by such constraints “renders significant populations analytically invisible.” We begin to address this limitation of these prior studies by conducting our



research in areas where Facebook non-users outnumber users by roughly 50 to 1 ([socialbakers.com](http://socialbakers.com) 2014), and draw attention both to these conditions, and to their effects on Facebook non-use.

## **2.2 Investigating Social Media Use in Developing Countries**

This study builds upon a small and growing body of research devoted to investigating social media use outside of the Global North. These studies, like ours, were motivated by the observation that future growth in Facebook use will not take place in these countries, where the numbers of users is plateauing ([socialbakers.com](http://socialbakers.com) 2014), but rather among populations in India, Brazil, the African continent, and elsewhere (Jidenman 2011). Miller's (2011) yearlong ethnographic study of the site in the island nation of Trinidad is the most comprehensive investigation of social media use to be performed outside of countries where studies of the site typically occur. He presents twelve detailed portraits of people he encountered who were unclear on the difference between Facebook and the broader Internet. Other works in this area include Bosch's (2011) analysis of South African college students' Facebook pages (Bosch 2009); Chigona and Petersen's (2009) small-scale study in South Africa to gain an "understanding of the gratifications sought and received from" using Facebook (Chigona and Petersen 2009); Peters *et. al's* (2015) comparison of Facebook use among Americans, Namibians, and expatriate Namibians (Peters, Winschiers-Theophilus et al. 2015); Uimonen's (2013) exploration of visual

identity on Facebook among Tanzanian youth; (Author et. al, 2013) and Kumar's (2014) studies of social media use in informal settlements ("slums"), in [country] and in India's largest cities. This body of work begins to fill the gap presented by boyd and Ellison (2007), by illustrating differences and similarities between site use in different regions. However, these prior studies primarily examine Facebook users and take place in developing countries' urban areas. Thus, we extend prior research by examining non-users who live in rural Zambia where (as in most African nations) the economic, social, and technical infrastructures differ vastly from those found in cities. Efforts to understand Facebook in developing regions are incomplete if they do not account for the majority of people in the world who do not yet have access to the Internet at all, much less to social media, and who may only be able to imagine these technologies. Although there have been technical projects focused on bringing Internet access to non-users (Heimerl, Hasan et al. 2015), and efforts to understand how the site is used in emerging markets, social media non-users and their perceptions of Facebook remain understudied.

### **3. Research Design**

The study design was exploratory and qualitative (Stebbins 2001). Data collection primarily consisted of semi-structured group interviews with mobile phone owners, daily *in situ* conversations, and observations related to Facebook at multiple sites in Zambia's Southern and Central Provinces during October 2013. The primary researcher is a

Caucasian female anglophone American university professor who has been studying ICTs in rural [blind for review] since 2009; this was, however, her first time in Zambia. Despite her long-term engagement with communities in East Africa, she is an “outsider”—or someone who is perceived as relatively powerful and rich compared to the populations she studies (Sidaway 1992). Scholars from geography, development studies, and HCI disciplines have examined the ethical issues related to ‘First World’ researchers conducting studies (like this one) in ‘Third World’ nation (Chambers 1983; Sidaway 1992; Taylor 2011); indeed, when a relatively affluent researcher affiliated with a Western university comes together with relatively poor respondents, questions about authority and positionality arise. The authors are aware of—and sensitive to—these debates; while some academics have expressed firm objections to research by ‘outsiders’ (Kobayashi 1994), others argue that research across geographic and cultural boundaries can be justified because difference is an inherent aspect of all social interactions, and that no one can ever truly be ‘insiders’ or ‘outsiders’ in any absolute sense (Nast 1994). We agree with the latter perspective, and believe that investigating ICTs in rural Zambia is essential to developing both a global understanding of the role technology plays (or does not play) in people’s everyday lives, and an insight into individuals’ perspectives who are geographically, culturally, and linguistically distanced from technology developers.

The findings presented here primarily draw on the analysis of data collected from 23 group interviews (n=78; 43 men and 35 women) that were conducted in rural areas outside of these market towns in Central Province: Chapu, Chisamba, Chanyanya, Chongwe, and from 14 sessions (n=39; 22 men and 17 women) that occurred around the Mukuni area in Southern Province. To help her gain access to these rural communities, the primary researcher hired two drivers and two research assistants. Although Zambia is a former British colony, and English is the country's official language, it is less commonly spoken outside of the country's urban areas. Nyanja and Bemba are the most widely spoken languages in the sites visited in Central Province. Accordingly, she hired an assistant fluent in these languages to help refine her interview protocol, recruit participants, moderate interviews, and translate and transcribe data after it was collected. When conducting fieldwork in Southern Province, she similarly hired an assistant fluent in the local Tonga language to help her collect and analyze data.

Our sampling approach was flexible and situational, an approach that has been recommended for use in exploratory research when there is no strong theoretical background to build upon (Stebbins 2001). Both drivers were familiar with the areas, and took us to sites where we could find small groups of people to interview. Our assistants moderated sessions in the language(s) participants felt most comfortable speaking, although instances of 'code switching' or changing between various languages were common in all

sessions (Myers-Scotton 1993). During sessions, the primary researcher took observational field notes, and documented participants and their mobiles. Each group discussion consisted of six to ten participants; sessions were digitally recorded, and ended after each member had answered our questions; this typically required 1 to 1.5 hours. To show our appreciation, each participant received a scratch card with about \$1 worth of mobile phone airtime<sup>1</sup>.

The sessions resembled focus groups in that we asked participants about their perceptions, opinions, and attitudes towards information and communication technologies (Krueger 2009); the meetings differed from this formal method in that they took place with little planning, and at locations that were immediately available (e.g., in peoples' front yards, or anywhere else where extra chairs and benches were available for people to sit in) Participants called friends interested in participating, so some interviewees trickled in after sessions had started. This flexible approach allowed us to conduct several group interviews with a wide range of people during our limited time in the field. A disadvantage of this approach was that we did not build robust long-term relationships with the communities under study; doing so would have likely yielded richer, deeper, and more intimate

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<sup>1</sup> Most Zambians, and all of our participants—like many mobile phone users in developing countries—use pre-paid “talk time” or “credit plans. Credit typically comes in the form of scratch-cards that are sold in units ranging from 1 to 1000 ZMW (Zambian Kwacha).

knowledge about our respondents and their perceptions of Facebook. In addition, data was collected by an outsider researcher, with the aid of translators; respondents' expressed interest in joining Facebook may possibly be attributed to the social desirability resulting from a Caucasian researcher asking about the topic (Dell, Vaidyanathan et al. 2015).

After collecting basic demographic information, including participants' ages and the names of their villages, we asked a series of open-ended questions. Initial inquiries focused on individuals' mobile phones, including the models they owned and what they used them for. A second series of questions were about Facebook. After asking members of each group "to tell us about Facebook," we followed up with more detailed questions, when necessary, to understand where they had learned about the site and what they imagined about it. Sessions concluded by giving participants the opportunity to ask the researcher questions; these mostly centered on how we planned to use their answers to our questions. Our goal to write an academic paper was of little interest to our non-English-speaking participants, but our intention to share our findings with Facebook's developers appeared to resonate with them. They shared, and we documented, their thoughts, concerns, and ideas about how ICT could better account for their local conditions in Zambia.

Data analysis began in Zambia and included the primary researcher writing field notes and discussing themes emerging from the data with her research assistants at the end

of each day. After the research assistants translated the interviews from Nyanja, Bemba, and Tonga to English, and transcribed them, analysis continued in the U.S. Our analysis was guided by an inductive and iterative approach using open coding of the interview transcripts, field notes, and photographs (Strauss and Corbin 1998). All of the narratives concerning Facebook were grouped under themes and examined. In later stages of the analysis, themes were compared to empirical findings from communication, new media, and science and technology studies. In order to discuss and confirm the findings presented here, several follow-up conversations took place with the research assistants, via both telephone and e-mail.

#### **4. Findings**

We found that the majority of our 117 participants were aware of Facebook and had formed detailed interpretations of the site, or had imagined it and activities it could support. This finding is significant, in that the resources necessary to use Facebook are virtually nonexistent in rural Zambia and only two of our respondents had ever seen the site. Analysis of how individuals learned about Facebook, and of their perceptions of it, suggested widespread interest in the communication and income-generating possibilities access to the site may provide. However, familiar—and less familiar—challenges prevented them from doing so.

#### 4.1 Learning about Facebook

Radio has been, and continues to be, the most widespread medium across Africa, and this is certainly the case in Zambia (Spitulnik 1998; Gunner, Ligaga et al. 2012). Zambian radio stations broadcast in languages rural residents understand, and the influx of these inexpensive, battery-powered devices from China means they are mostly affordable to the country's low-income rural residents. Radios are rural residents' primary source for music, entertainment, and national news; participants also frequently and consistently described "hearing about" Facebook via radio programs. One typical comment—from "Phiri"<sup>2</sup>, a farmer living near Chisamba—was:

I have heard of Facebook. I heard of it on the radio on the morning program, someone was announcing to say if you want to participate on this program, get in touch through our Facebook page.

"Kuseniseni" and "The Local Rhythms Countdown" are two popular programs on the Lusaka-based radio station Joy FM. To encourage audience participation from the largely urban population to whom they cater, radio personalities make announcements during shows asking listeners to get in touch by "liking" content posted on the station's Facebook page, to vote for their favorite songs, or to speculate about who may win an upcoming football match.<sup>3</sup> Donner *et al.* (2011) also mention this phenomenon of learning

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<sup>2</sup> All participants' real names have been replaced with pseudonyms.

<sup>3</sup> See <https://www.facebook.com/pages/The-Local-Rhythms-Countdown/164403156909390>.



about Facebook via the radio. Similar to the urban South African women Donner interviewed, our participants were curious and enthusiastic about Facebook, with many telling us they “would like to join.” However, a significant distinction from this prior research was the discovery of widespread confusion and questions about what joining Facebook “really means”: as a result of having learned about the site via snippets of out-of-context audio information, respondents’ understanding of the site was incomplete. This remark is representative of others voiced during group interviews:

I would want to join Facebook and I get to understand what it is about. As of now, though I do not know the meaning of Facebook. It’s difficult to really get what they say about Facebook. We don’t know how it works and we don’t know how it looks like or what it really means.

These comments were typically followed by questions such as “Are voices heard when communicating with someone on Facebook?,” “You can get someone’s picture, is it true or what?,” and “Does it mean that on Facebook, I can communicate with someone without using their phone number?” These and similar remarks suggest that our respondents imagined that the site could support new forms of communication. These statements also indicate that social media—or, at least, the idea of it—has reached places where the technical and economic infrastructures necessary to use the site have not kept pace, and point to the critical (and ongoing) role of radio in creating awareness of digital services.

Other, less common sources for learning about Facebook included conversations with friends and relatives living in urban areas who used the site. Parikh and Ghosh (2006), introduce ‘intermediated interactions,’ and describe their role in providing people who are not “capable of using the system independently” with information. Here, we see that these word-of-mouth interactions also facilitate a certain amount of learning about social media among populations who have never used, let alone seen Facebook. Though infrequent, we also encountered a handful of participants whose knowledge of Facebook came from the English-language text messages sent by the Airtel corporation (Zambia’s dominant mobile network service provider) to its subscribers’ mobile phones advertising Facebook Zero (the text-only version of Facebook; see Figure 1). Although these participants knew some English, they ignored the advertisements, because they prefer voice communication to SMS (the platform used for Facebook Zero)—further evidence demonstrating that rural farmers rarely use this mobile phone service (Crandall 2012).

Texting is difficult enough in English; doing it in languages such as Nyanja, Bemba, and/or Tonga, which are characterized by imprecise spellings and very long words, is even worse for novice users. The multiple subskills required to send text messages via simple mobile handset—inputting letters, spaces, and symbols, and switching between upper and lower case—involve a significant learning curve, particularly when menus involve only English words. Another problem was that the messages stated that recipients

could “access Facebook without the Internet.” However, because these individuals did not distinguish between Facebook and the broader Internet, they were confused, and disregarded the messages. This is in agreement with the research by Miller (2011) which indicated that interpretations of social media and the Internet are interchangeable among social groups whose familiarity with ICT is limited to the basic, mostly non-Internet-enabled mobile phones we observed.

The Internet expands and re-configures the communicative affordances of radio, and we see the convergence between mass media and online communication spaces in Zambia (Ito 2009). Joy FM radio and Facebook encourage regular use of social media by the country’s relatively small population of urban elites, who are more likely than their rural counterparts to speak English, own Internet-enabled handsets, and know how to use them to access Facebook. Our focus on non-users highlights the asymmetries of these hybrid media spaces by revealing the varied interpretations that arise when rural residents’ primary understanding of Facebook, comes piecemeal from radio broadcasts, informal conversations, and indecipherable advertisements rather than through interacting with the site on a computer or Internet-enabled mobile phone. Finally, these findings also raise questions about the utility of using English when advertising an SMS-based version of Facebook to a population largely unfamiliar with the language and which rarely uses SMS.

#### **4.2. Perceived Benefits of Joining Facebook**

Group interview data indicated a general awareness of Facebook, a desire to learn more about the site, and an interest in joining. We probed to understand respondents' reasons for wanting to become users, and our findings are consistent with prior studies of mobile phone use in rural Africa. Social and economic reasons were common (Röller and Waverman 2001; Donner 2005; Aker and Mbiti 2010; Murphy and Priebe 2011); also mentioned was interest in the new communication possibilities which the site affords, including self-presentation (Pempek, Yermalayeva et al. 2009; Nadkarni and Hoffman 2012). Although knowledge about Facebook and its features varied—for example, younger participants understood the communicative capabilities of the site more than did older adults—common to most participants was the awareness that social media was a technological innovation that offered new communication possibilities, and they imagined the site could be used to make new friends and to sustain contact with existing ones. These representative remarks capture this sentiment shared among our respondents:

I have never used Facebook before. I have just heard about it, it is where people find friends. You can get to have more friends throughout the world.

And

I heard from my mum's sister that Facebook is nice, you can communicate with friends and meet new friends from around here, and some of whom are in faraway places.

Others were more specific about these “faraway places” in their comments; destinations ranged from neighboring villages, to bordering countries, to the U.S. In Zambia, prices for domestic and international calling remain high and the quality is poor (Kaira 2010/2011), so the possibilities of initiating communication with family members or to “meet new friends” in other regions of the country, or in nearby South Africa and Mozambique, seemed appealing. This resonates with Burrell’s (2012) findings that urban Ghanaian youth wanted to use the Internet to find ‘pen pals’ (a term typically applied to foreign contacts) and is also consistent with Author’s (2013) conclusion that in rural [country], Facebook—specifically the site’s ‘chat’ feature—is being used to alter the historically unidirectional flow of transnational communication, and to connect residents to each other both in Zambia and abroad.

As with the mobile phone, and with the radio before it, our rural participants appeared to associate Facebook with spatial expansion or connecting to a wider world (Spitulnik 1998). Unlike with those predecessor technologies, participants recognized that Facebook supported new forms of visual communication—specifically posting and exchanging photographs with other people. According to Majorie:

Through Facebook, one is able to communicate with people you can add your photo and you are able to see their photos and they can see yours.

Participants wanted to know more about everyday life outside of their rural villages, and this desire appeared to be a reason “seeing” photos was appealing. Women were especially interested in seeing and being seen by friends and family members living elsewhere, perhaps because high transportation costs and household obligations limit their geographic mobility or their ability to physically interact with people outside of their immediate surroundings (Porter 2007). Men in our study—such as Benjamin, a young farmer—tended to imagine the practical benefits of exchanging photos online:

If I were on Facebook, at least I would be able to send photos of my crops to those who support me with fertilizer and seeds.

Towards the end of the group interview he added, “I know that I can do business on Facebook.” Accessing the people who provided him with fertilizer reflected Ben and other men’s perceptions that using Facebook could possibly result in increased “business opportunities,” a term frequently use when discussing their interest in joining the site. Andrew, a carpenter, valued his mobile phone because he could communicate with customers without travelling to see them, which saves him time and money (a consistent finding regarding the benefits of mobile phone ownership in Africa (Donner 2006; Aker and Mbiti 2010). He saw Facebook as another ICT that could provide additional benefits, telling us, “through Facebook, you are able to search for business opportunities widely.” In his case he hoped to expand his customer base beyond his village and to sell the beds and

chairs he made to people elsewhere. This desire to use Facebook in ways that potentially support income generation is consistent with conclusions from (Author et. al, 2013)'s study of slum residents who use the site to market their local enterprises (e.g., bars, restaurant, and small retail shops) and Kumar's (2014) studies of urban youth in India who use Facebook to seek employment; these entrepreneurial motivations are rarely mentioned in prior studies of Facebook.

#### **4.3 Challenges to Use**

For the majority of our participants, the main obstacles to using Facebook were the familiar infrastructural and economic ones (Brewer, Demmer et al. 2006; Heimerl, Hasan et al. 2015). Remarks about the limited network coverage in rural Zambia were common, for example:

Poor network discourages me from signing up for Facebook. I would want to be on Facebook, but for poor network around here.

During sessions, participants would point to spots where connectivity was most reliable—some involved climbing a tree. Residents of the Mukuni area, near the border with Zimbabwe, had a different problem, however: Zimbabwean network signals were stronger than Zambian ones, and the Zambian phones automatically switched to the strongest network, but this led to unaffordably high international roaming charges.

A major concern among all participants was the possibility of extra costs being incurred from phone use; even though we explained to them that Facebook Zero was free, many asked if using Facebook would reduce their available “talktime,” and commented on cost of maintaining the charge on their handset batteries. Underlying the hopes for Facebook appear to be assumptions about users’ abilities to keep their cellphone handset batteries charged. Efforts are underway to increase the number of rural households with electricity in Zambia to 51% by 2030, but at the time of our study, barely 3.5% of rural Zambians had access to electricity (Mudenda, Johnson et al. 2014), and few respondents had consistent access. Participants reported spending about four cents a week to have their phone battery charged at a charging kiosk; for a population that lives on the equivalent of \$1 to \$1.50 a day, this can be a significant expense. While the popular press anticipates that growth in smartphone users in sub-Saharan Africa will increase the number of Facebook users in sites like those we studied (Mudenda, Johnson et al. 2014; 2015), an overlooked consequence of these devices is that they require more electricity to use, and thus their batteries deplete at a faster rate than do the basic, non-Internet-enabled handsets the majority of our participants currently had. Internet.org’s efforts to lower the costs of accessing the Internet and create free services may bring more people online; however, this also means that rural users may incur other costs that come from using Facebook, such as more frequent battery charging. It is also unclear whether or not access to information



Internet.org offers (i.e., news, maternal health, travel, local jobs, sports, communication, and local government information—and, of course, Facebook) is worth the extra cost, especially for populations struggling to pay for the necessities of life.

Another reason which many participants mentioned for their perception of Facebook as a site that they could not use was their lack of literacy in English. Comments about wanting to use the site were frequently followed by requests for it to be in Nyanja, Bemba, or a combination of these and other languages. For example, Andrew a young farmer who lived outside of Mukuni, explained:

People on Facebook use English that I can't read. I communicate easily in both Nyanja or Bemba, so if Facebook was in these languages it will be easier for me to join.

Rural Zambians, like most people in sub-Saharan Africa, speak two and often three different languages, and frequently use elements from all of them when conversing with each other (Myers-Scotton 1993); however, most do not speak English, and those who do are rarely fluent. Similar to Andrew, others perceived English literacy as being necessary to join Facebook—a perception that is likely reinforced by English text messages sent to their handsets advertising the service. Efforts to design interfaces for low-literate or illiterate populations have been a longstanding topic of interest within Information and Communications Technology and Development (ICTD) communities (Medhi, Patnaik et al. 2011; Medhi Thies 2015). Researchers developing social media platforms for these

populations suggest “the extensive use of graphics to overcome users’ inability to read text” (Medhi-Thies, Ferreira et al. 2015), or consider illiteracy to be a barrier that can be solved by machine translation (i.e., developing computer algorithms to translate English text into other languages) (Toyama 2010). However, these proposed solutions do not account for nor support the linguistic complexity we observed in our study, and which participants perceived as not being supported by Facebook. Contemporary dictionaries of some Zambian languages do not exist (Banda and Bellononjengele 2010), and direct translations are complicated by rural Zambians’ tendency to switch between two or more languages in the context of a single conversation. We speculate that designing social media so that it supports the complexities of language use in multilingual societies cannot be achieved using graphics, and exceeds the bounds of current machine translation techniques. Alternative design approaches that account for people’s existing language-use practices should be considered, including continued development of voice-based social media platforms (Patel, Chittamuru et al. 2010).

The influx of substandard and counterfeit (or ‘gongá’, a colloquial word for ‘fake’) phones may be another challenge that complicates non-users’ efforts to become Facebook users. Nearly two-thirds of our respondents had these inferior-quality handsets, which are typically manufactured in China. These devices, which have been referred to as “China-sets” in urban India (Smyth, Kumar et al. 2010) and “China-makes” in prior studies of

mobile phones in [country] (Author et al., 2012), are relatively inexpensive, costing the equivalent of \$12 to \$18—less than the \$35 for which an original basic handset sells. Unfortunately, their life expectancy is dismal compared to original models. We were frequently told that these devices “do not last long,” and that after they no longer worked, people hoped to get their devices repaired or to buy another one. Affordability was not the only reason participants were attracted to these devices: most are misleadingly marketed as “Internet-enabled,” and included the Facebook logo on their interfaces. Even if the phones worked as promised and could be used to access the greater Internet, it is not likely that our respondents could afford the Internet bundles necessary to use this version of the site, let alone the knowledge and skills necessary to create a profile. The problems with gongá phones contributed to the widespread perception that joining Facebook meant upgrading to a new phone; indeed, a common remark made in our group interviews was, “I need an original phone to use Facebook.” Purchasing an original Nokia or Samsung mobile phone with Internet capabilities is beyond the budgets of most rural Zambians.

Finally, while the majority of our participants expressed an interest in joining Facebook, some (particularly women) wanted to remain non-users, because their friends and relatives had told them about “bad things” happening online. These activities ranged from husbands leaving their wives for women they met on Facebook, to the site being a repository for pornography and satanism. Understanding how such perceptions affect non-

use of social media in developing regions is largely uncharted terrain, and an appreciation of such matters is a topic that merits further investigation. These instances also serve as a reminder that researchers and technology companies should avoid conceptualizing rural residents as passive receivers of external technological developments. Instead, they should be seen as active agents with the right to choose whether to adopt devices and/or how they use them, within their resource constraints (e.g., English literacy, or the ability to afford connectivity).

## **5. Discussion**

Our findings begin to make visible a population that has largely been rendered analytically invisible in prior social media studies. We also see that new media researchers can learn from prior studies of mobile phone and Internet adoption in developing regions, to anticipate the possibilities and challenges that may accompany the introduction of social media into rural sub-Saharan Africa. The desire to be part of a worldwide network is powerful, even among non-users who are not sure how to use social media, or fully understand what it is. However, due to the confluence of economic, infrastructural, material, and linguistic barriers described above, access to even the stripped-down version of the site that was developed for rural mobile phone owners—like those we studied—was hindered. Furthermore, even when participants could access it, a substantial divergence exists between Facebook Zero and a full-featured mobile version of the site. The features

that individuals imagined accessing—including making new friends, and visual communication—are not supported in the text-based version; instead, it mostly supports browsing status updates (Wasserman 2011), which makes it uninteresting to the very group it was meant to target.

We also see how disenfranchisement here comes not only from economic and technical constraints (Satchell and Dourish 2009), but also from conceptual barriers, such as a limited knowledge of Facebook, questions about “what it means,” and perceptions (both real and imagined) of social media as a costly, English-only service; such interpretations may lead some to imagine that the site is not for them. These findings represent a novel understanding of how disenfranchisement occurs in practice, and offer another dimension to be considered, studied, and included in Lenhart and Horrigan’s (2003) digital spectrum from “home broadband user” to “truly unconnected.” Indeed, new media researchers must develop better conceptual tools and theoretical vocabulary for discussing and considering the ways that ICTs may (directly or indirectly) impact those individuals who are aware of a technology but do not use it.

Selwyn (2003) writes that most academics focus on non-use of ICTs as a “problem which should be solved.” This is not our intention; rather, we want to give a voice to Facebook non-users and discuss the implications that may arise when (and if) their understanding of the Facebook changes from imagined to real and they become users. Our

findings offer further evidence suggesting that technical and economic solutions such as Internet-beaming aerial drones and low-cost data packages alone may not make Zuckerberg's goal of "connecting the whole world" a reality (Zuckerberg 2013). We previously note the limitations of approaches designed to overcome language barriers that prevent many from joining Facebook, but even if Facebook supported communication in different languages, new challenges would emerge. Based on her observations of urban youth in Ghana's cyber-cafes, Burrell (2012) noted how "etiquette and ethos" of online spaces are defined by Euro-American social norms. Our participants' limited awareness of these norms would likely constrain their abilities to befriend, or to pursue "business opportunities" with people in faraway places. While the Facebook-led initiative to "connect the two thirds of the world that doesn't have internet access" is largely framed as overcoming the technical challenges, equally important are the material challenges (i.e., access to suitable handsets) and social challenges, including designing a site that connects people for whom Facebook has become an integral part of their lives with those whose knowledge of it is limited, who come from vastly different socioeconomic and linguistics backgrounds than the site's current users, and who want to use social media for purposes it does not yet support (i.e., business opportunities).

While respondents developed detailed interpretations of the site, and imagined what it could be used for, it is also useful to reflect on what they have not yet imagined about

using Facebook. For instance, none considered that by joining, they would be providing a company with their potentially valuable personal data, thus bringing a host of new privacy concerns to populations without much privacy protection. Confusion regarding differences between Facebook and the open Internet, or perceptions that “Facebook is the Internet,” (Miller, 2011) may ultimately benefit the social media company. This findings offers some support for critics’ arguments that Zuckerberg’s efforts may violate net-neutrality and lead to the creation of a “walled garden” (Best, 2014) where the company controls which content developing-world populations can access. Finally, our rural respondents have not imagined that Facebook is not just a communication tool, but a for-profit company that largely relies on an ad-based business model to generate revenue. It is unclear how successful this model will be when advertising to people who lack disposable income. In addition to investigating the social practices and motivations which surround the use of social media, new media scholars must also analyze the potential consequences of bringing marginalized populations in line with the interests of powerful capital and commercial entities. There is growing evidence to suggest that well-intentioned efforts to ameliorate socioeconomic inequalities via ICTs actually result in the opposite: the existing divide between the haves and the have-nots becomes ‘amplified’ (Toyama, 2015).

## **7. Conclusion**

Our findings begin to make visible a sample of non-users' perceptions and beliefs about Facebook; however, with an exploratory study of this nature, it is difficult to know the extent to which the findings reflect widespread awareness of Facebook among non-users. This was an exploratory study; future research is needed to validate our findings—in particular, the misconceptions that arise when people's initial encounter with Facebook comes piecemeal via radio broadcasts and conversations. Another methodological limitation of our study is linked to translation. Not being conversant with the local languages, the first author analyzed the data from transcripts that had already been translated into English. The translation process may have altered the original meaning of the text. We encourage and invite further longer-term, multi-sited, and theoretically-driven studies of which examines rural populations' imaginings of Facebook and how they are similar, or different from the actual site.

This article presents an exploratory study of Facebook non-users in rural Zambia. Efforts to understand social media in developed and developing regions predominantly focus on users of the sites; this excludes the largest segments of the world's population, who are increasingly becoming the targets of corporate efforts to provide them with access to the Internet—and, subsequently, to social media. Given the rapid evolution of Internet services, and the emergence of mobile phones as the primary point of access for social media among populations in the developing world, we believe this research contributes an



important and timely update on the challenges that may accompany efforts to “connect the two thirds of the world that doesn’t have Internet access.”

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**Figure 1: Text Advertisement for “Facebook without Internet” in Zambia**

