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Urban Digital Inequality: Adversity and Adaptation in the Network Society

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Will Marler

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Abstract

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Will Marler

The study of digital inequality has advanced our understanding of how existing socioeconomic disadvantage – such as by income, education, age, gender, and race – translates into disadvantage in the digital realm. Yet, our understanding of the relationships between the diffusion of information and communication technologies (ICTs) and broader processes of socioeconomic inequality remains limited in important areas and by its primary approaches to research. One gap in our knowledge is how digital inequality emerges in relation to the social and physical environments of urban centers. In this research, I show how ethnography can be used to reveal novel dynamics of digital inequality related to social support, interpersonal bonding, and online social networking among adults who are experiencing homelessness. I conducted participant observation offline and on the social network site (SNS) Facebook between 2016 and 2019, focused on a loose-knit group of unstably housed adults living in a north-side neighborhood of Chicago. There are three primary findings of the dissertation. First, there is a broader range of social ties – including strangers and acquaintances – that matter for assistance in maintaining access to ICTs and to the kinds of emotional support that emerge through the use of technology. Second, beyond providing the means of internet access, community institutions shape the ways technology can be used and thus effect rare opportunities for people experiencing homelessness to bond around the leisurely use of digital media. Third, people approach online social networking influenced by different offline experiences of poverty, explaining why some in poverty may avoid sites like Facebook altogether and others may engage

in risky practices in an attempt to make up for resources lacking in their offline lives. In light of the findings, I offer suggestions for policymakers and community institutions to adapt to digital-age realities for people experiencing homelessness, such as the sharing of "government phones", the playing of audible music at the library, and the over-exposure to Facebook scams. The dissertation advances a "community" approach to digital inequality research that acknowledges everyday and local processes affecting the broad outlines of marginalization in the digital age.

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Introduction

Urban Digital Inequality

With the "rise of the network society" comes the expectation that all are connected to and through digital technologies (Castells, 2000). One's ability to navigate society and economy in the 21st century, the theory goes, is to a large extent dependent upon one's relationship with a generation of information and communication technologies (ICTs) known as the "digital" (Benkler, 2006; Castells, 2004; Gates, Myhrvold, & Rinearson, 1996; Norris, 2001). Being social, being a citizen, being in the know, being employable, being well-positioned: in the network society, what matters is one's orientation to the new devices, applications, and literacies of computers and the internet (Castells, 2000).

Over the last 30 years, as digital technology has advanced, so has the gap between the poorest and wealthiest in the U.S. (Atkinson, 2015; Piketty & Saez, 2014). Welfare reforms in the late 20th century restricted access to public assistance, leaving the poor with fewer resources to survive poverty (Peck, 2001; Wacquant, 2009). In U.S. cities, the shift to a post-industrial economy has contributed to a generational cycle of poverty for many urban communities, particularly for African American communities, who have been historically denied equal participation in economic and social institutions (E. Anderson, 1999; Desmond & Gershenson, 2016; Wilson, 2012).

The rise of the network society poses new questions for our understanding of socioeconomic inequality as income gaps grow in the U.S., questions with equal salience globally. Research in the area of *digital* inequality has since the turn of the twentieth century sought to chart this dual process of change in technology and socioeconomic inequality

(Robinson et al., 2015). Digital inequality research provides a sober counterpoint to early visions of the internet that hailed the technology as a democratizing force poised to expand economic and political participation through easier and cheaper access to education and information (Gates et al., 1996; see also, Howard, 2007). Digital inequality research shows that, though internet access has spread in some form to a majority of the global population (International Telecommunications Union, 2016a; A. Smith, 2017), the benefits that flow from internet access are not equally realized across the rich and poor, urban and rural, men and women, the young and old, and racial and ethnic majorities and minorities (Hargittai, 2008; Toyama, 2011; A. J. A. M. Van Deursen & Helsper, 2015). As factors of structural inequalities in access to education, political representation, and economic opportunity, there are gaps in people's digital skills and in how people actually use the internet and their digital devices that explain why in many ways, the rich may get richer in the network society.

Taking the U.S. as a case, even as internet access has spread in some form to a supermajority in the society (A. Smith, 2017), *stable* and *dependable* internet access is lacking for large number of low-income Americans, who cannot rely on continuous internet service across a number of devices in a way that is essential for equal participation in a society and economy that reward perpetual connection (Gideon, 2012; A. Gonzales, 2016; James E Katz & Aakhus, 2002). Moreover, the benefits to social and economic participation that *flow from* internet access are shown to more likely to pass to those with existing structural advantage – roughly, the wealthy and well-educated, with other inequalities falling along age, gender, race, and urban/rural location (Hargittai, 2008; Scheerder, van Deursen, & van Dijk, 2017). Meanwhile, the novel harms associated with participation in the network society tend to weigh disproportionately on the already disadvantaged, such as in the targeting of marginalized

populations through new forms of electronic surveillance and personal data collection (Eubanks, 2018; Seeta Peña Gangadharan, 2015).

Research into economic and digital forms of inequality in the 21st century suggests that those who stand to gain the most from new technological capacities to develop their social and economic capital are simultaneously the least well-positioned to take advantage of those new technologies while avoiding the harms that stem from using them. As the debate continues from a birds-eye view on the broad effects of digital technologies on socioeconomic inequality in the U.S. and globally, there is room to investigate what is happening on the ground. How are people on the peripheries of social and economic power adapting in the course of their daily lives in order to address the growing centrality of digital technologies in society? How are people with few resources maintaining a connection to the internet and to smart devices? How do their motivations for internet use align with the capacities they have to go online? And to what extent does the promise of digital technologies – particular those that promise to expand our access to support from strangers and friends, near and far – translate into contexts where people lack access to the most basic of needs, such as shelter and a reliable income?

In this dissertation, I adopt an ethnographic approach to studying digital inequality with the goal of rethinking how people in poverty in the U.S. experience and address marginalization tied to digital technologies. I address the literature that examines how gaps manifest in people in poverty's access to technology, their uses of technology, and the outcomes for people's life chances. I do so through participation observation and interviews with people experiencing homelessness in the third largest U.S. city, Chicago, examining the trajectories of their offline and online lives over several years. I develop an account of digital inequality that aims to better

focus our attention on the local circumstances shaping digital-age struggles as well as the creativity of low-income communities in overcoming barriers to digital inclusion.

What do I mean by local circumstances and community creativity, and how has digital inequality research often overlooked these factors in studying the digital face of poverty since the late 1990s? In part, the degree of oversight is a matter of unrealized connections among areas of digital and urban research into inequality. Consider the following line of research among sociologists of poverty and social networks. As with middle-class communities, sociologists show us, a resource of significance is the network of contacts one claims (M. Granovetter, 1974; Lin, 1999). From family and friends to neighbors and workmates, as well as to strangers, the urban poor turn to those around them to materialize support required for getting by and getting ahead (Briggs, 1998; Desmond, 2012; Domínguez and Watkins, 2003; Stack, 1975). Despite the generosity and ingenuity on the part of poor communities, the way that poverty tends to become concentrated in American cities makes for a limited pool of resources and of good will out of which the poor can draw to help one another survive and get ahead (Desmond, 2016; Sampson, 2012; S. S. Smith, 2005). Nonetheless, the idea has shaped poverty research over many decades: that the urban poor survive and, less often, advance out of poverty, off of the resources that flow from their social connections (Briggs, 1998; Domínguez & Watkins, 2003; Stack, 1975).

We know less about how interpersonal support networks in urban poor communities interact with the contours of digital inequality. Digital inequality research has explored how digital opportunity is stratified by differences at three levels of engagement with technology. People are privileged differently, the research says, in 1) their basic means of access to the internet, 2) their different skills and uses of the internet, and 2) the life outcomes that emerge from different ways of using (and being able to use) the internet (DiMaggio, Hargittai, Celeste,

& Shafer, 2004a; A. J. A. M. Van Deursen & Helsper, 2015). Researchers examine these layers of ICT inequality as they are shaped by various dimensions of status and background typically examined in inequality research (Piketty & Saez, 2014) – age, gender, race, class, urban/rural location, among others (Robinson et al., 2015).

Though not common to digital inequality research, several existing qualitative studies illustrate how it matters to digital opportunity where you live, who is nearby, and who you can call on. For example, a study of low-income Latinx families in the U.S. finds that it is through family members living at home and nearby that older generations learn to use the internet (V. S. Katz, Moran, & Gonzalez, 2018). In addition to the help they get to learn to use technology, members of low-income communities may also use technology to build, maintain, and access their interpersonal networks which are available to support them. In this sense, social network sites (SNSs) like Facebook approximate hi-tech Rolodexes of social contacts that could help in a time of need (Ellison, Steinfield, & Lampe, 2007). And yet, the social and physical context matters. Existing studies on how social media might facilitate the development of social capital focus primarily on social media users in the middle class, as well as college students (Burke, Develin, & Park, 2016; Ellison et al., 2007; Vitak & Ellison, 2013).

Furthering this line of inquiry, consider instead a low-income young person living in a rural area with limited opportunities for upward mobility, such as getting into a good college. For such a young person, the potential benefits of online networking – such as starting up conversations with college goers in big cities on social media – can quickly be outweighed by the harms of social media – such as might come from the ads for high-interest college loans placed alongside tweets (Rickman & Sandvig, 2014). Rural location helps us understand why youth may reach out over social media rather than in their interpersonal networks for aid in pursuing

educational and economic opportunities, as well as to address the development of their personal identities (Gray 2009). Understanding social context as a factor of location helps us parse how coming from a position of disadvantage makes one disproportionately susceptible to the negative effects of social media for personal privacy and mental well-being (Cramer, Song, & Drent, 2016; Li, Chen, & Straubhaar, 2018). Employing qualitative interviews and long-term engagements with physically bounded communities, such studies illustrate how people's abilities to leverage ICTs for survival, advancement, and well-being is shaped not only by their socioeconomic status in the abstract but in the details of the places they lives and people who surround them day to day.

The study of poverty in the digital age stands to benefit from an investigation of interpersonal networks and urban location as factors shaping digital inclusion and well-being. In the following chapter, I describe our nascent state of knowledge around the role of social support and social capital in shaping individual's chances at survival and advancement as ICTs become central to social and economic participation. As I argue, much of what we know about digital inequality stems from survey approaches that tend to evaluate discrete individuals rather than interpersonal groups or communities.

In this dissertation, I explore digital inequality from the viewpoint of individuals embedded in communities, both social and physical, rather than as discrete units. "Community" is a broad and contested term across sociology and digital studies (Brint, 2001; Fernback, 2007) and it is beyond the scope of the dissertation to settle these debates here. The community approach to digital inequality research that I have in mind shifts the focus from discrete individuals, such as tend to be the objects of survey research, to the interactions of a loose-knit group of particular people in time and place as they seek out support in physical and digital

settings. “Community” here is both the collection of people one interacts with and finds significant, and the physical setting in which one lives and manages their social ties, whether those are near or far. This approach dovetails with that of researchers calling for greater attention to various dimensions of social and physical context in digital inequality research (Robinson et al., 2015) as well as to digital scholars drawing attention to community as a promising level of analysis (V. S. Katz & Hampton, 2016; Lane, 2016b).

The dissertation is designed to explore primary concepts of digital inequality as theorized on three levels by researchers through a focus on members of a low-income community. Namely, I explore issues around how low-income adults access the internet, their uses of the internet, and the life outcomes of those uses (DiMaggio et al., 2004). While internet skills – included in the second analytical level of digital inequality -- are relevant to the study and come up throughout my analysis, I focus less specifically on internet skills and more on the dimensions of access, use, and outcomes of use. The empirical setting for the dissertation is a low-income area I call “Waterside” in north side Chicago, where I began conducting fieldwork at a poverty nonprofit in 2016. As I describe in Chapter 3 and in the appendix, my participant observation expanded from the setting and clients of the nonprofit to the broader “Waterside” neighborhood and a broader community of low-income residents in the area who were experiencing or had recently experienced homelessness. I developed my research questions and the following case studies in iterations. That is, I brought questions to the field with me and adjusted those questions as I learned from my participants, in the tradition of grounded theory research (Charmaz, 2006; Glaser & Strauss, 1967).

The substantive chapters of this dissertation explore 1) smartphone access and phone “accumulation”, 2) computer access and leisurely uses of the internet, and 3) “connective

ambition" and the use of social network sites for personal fundraising. Chapter 1 is a review of the literature. In that chapter, I illustrate the need for community-level, qualitative studies of digital inequality to draw out nuanced processes less likely to be explicated in survey research, the approach that has provided much existing knowledge of digital inequality. In Chapter 2, I provide a description my research method. In that chapter, I lay out how I conducted my ethnographic research and how I conducted participant observation both offline and online in the lives of my participants. I describe the process of informed consent and provide sketches of key participants in my research. I address more detailed issues around getting into the field site, developing trust, and pursuing offline/online fieldwork in the Appendix.

Chapter 3 is the first of three substantive studies. In that chapter, I examine the creativity that is involved on behalf of my participants -- people of few means, many without stable housing -- in their attempts to maintain access to a working mobile phone with data plans for internet access. Though much research has addressed the question of mobile phones and poverty, there remains a gap in our understanding of why people in poverty often possess and put to use multiple phones. Filling in the gap in our understanding, a national political discourse in the U.S. interprets the possession of multiple phones by low-income Americans as evidence of entitlement, welfare fraud, and criminality. As I learned a few months into my fieldwork, this discourse was tied to the fact that, in the U.S., poor people often kept a "government phone" – one whose service was subsidized by a federal assistance program – in addition to another personal phone. At odds with this political discourse, I find that poor people in Chicago turn to multiple phones to achieve what a single phone on a high-end service plan achieves for those who can afford one. I show in Chapter 3 how through the possession of multiple phones, including one or more "government phones" on subsidized service, the poor attempt to overcome

the instability of technology access that comes with a lack of housing and income security. In particular, I show how subsidized phones serve to back up other personally owned phones, to build up capacities across them, and to share with others in need. I conclude the chapter by suggesting future research on such phone "accumulation" as well as suggestions for policy to adapt to the common practice.

Chapter 4 shifts the focus to my participants used the internet on public computers for leisure and entertainment. While much research rightfully focuses on the implications of mobile phones for people in poverty, public computers remain a key means of internet access for urban disadvantaged communities. As I explore in the literature review, research has prioritized the uses of public computers for "life-enhancing" purposes – employment, education, skills – while leaving open questions about other uses, including for leisure and entertainment. Moreover, a focus typically on libraries narrows our understanding of how different access institutions shape internet use for people relying on public access to the internet. This is a limitation, as institutions in their goals, policies, and technology offerings shape the way that technology is used and can be used, such as for more and less "productive" purposes. The study compares the use of the internet on public computers at the "People First" nonprofit that served as my primary institutional field sites and at the nearby "Waterside library". Through observations and interviews, I found that the use of computers for leisure, entertainment, and social media is common at both the library and nonprofit, alongside the more "productive" uses that institutions prefer to report to funders and the public. Where the library encourages a quiet and individual use of technology, the nonprofit allows for noisy computer use of a kind that "involves the room." Leisure and entertainment activities around shared computers at the nonprofit contribute

to social bonding and coping mechanisms or stress among people lacking opportunities to do so elsewhere due to unemployment, housing insecurity, and distance from family.

In Chapter 5, I turn from issues surrounding phone and computer means of internet access, and from leisure and entertainment uses of the internet, to the use of social network sites (SNSs) regardless of access device and for the purpose of personal fundraising. There is a good deal of interest among digital scholars as to the connection between the use of SNSs and people's ability to garner resources from their social networks. The positive correlation between SNS use, primarily Facebook, and social capital formation is supported in several studies, most focused on college students. The notion is that sites like Facebook allow for people to maintain social ties across life changes and to browse other user profiles in a way that maintains a latent sense of where resources reside in one's social network. In my fieldwork with unstably housed adults in Chicago, I observed that many of my participants placed great faith in Facebook as an avenue for connecting with "the wider world" outside of Chicago and the U.S. These connections could be leveraged, my participants suggested, to raise money for themselves and others in need, in conjunction with "crowdfunding" sites like GoFundMe. In Chapter 5, I show how, for people experiencing homelessness, the broader social stigma applied to people experiencing homelessness shapes their online attempts to leverage resources for themselves on Facebook. I assess the sense among some of my participants that, by collecting hundreds or thousands of ties on Facebook, they could produce donations to get themselves or others they know off the street. I call this sense "connective ambition." Yet, and with often limited knowledge of how to manage basic and advanced features of Facebook, my participants also tested out atypical ways of using Facebook in order to avoid scams and unwanted attention, practices I refer to as "creative

caution." The chapter reflects on the conditions that make the use of SNSs likely to fail as a novel avenue for low-income adults to build social capital outside their existing networks.

In the conclusion, I lay out three contributions to digital inequality research from my long-term engagement with unstably housed adults in Waterside, Chicago. I show how, for people in poverty (Desmond, 2012) and perhaps for the broader public (Small, 2017), strangers and acquaintances play a much larger role in social support impacting on digital access and use. Second, I argue that community institutions – namely, nonprofits and libraries – do more than provide access to low-income communities but also, in their policies and organizational ethos, shape the way the internet is used, and, as a result, ways of being together among people living without internet access at home. Finally, I show how offline context is particularly impactful on the ways that people without secure housing approach social media platforms as avenues for material gain.

Throughout the dissertation, the focus is on the social and physical environment in a particular urban neighborhood. The goal is to illuminate how people make sense of the demands and allures of smartphones and social media under the duress of homelessness and deep poverty as an experience of everyday life. The idea is that by examining people's lives over time and in a particular place, we are able to illuminate aspects of the reproduction of inequality through digital technologies that may not be apparent through surveys as snapshots of social life. "Digital *urban* inequality" is such a focus on the mutual shaping of people, technology, and inequality as a matter of a particular place over time. I begin this examination by turning to the literature that both informs and leaves open questions of digital inequality in the urban setting.

Chapter 1

From National Surveys to Community Research: A Literature Review and Agenda for Studying Digital Inequality in Urban Place

How do members of marginalized communities adapt to changes in the landscape of information and communication technologies? Researchers have added to our knowledge of ICTs and social exclusion by applying theories of inequality to what they observe through interviews and participant observation. Youth in the Internet cafes of Ghana (Jenna Burrell, 2012), families in the slums of Chile (Ureta, 2008), LGBTQ youth in the rural U.S. (Gray, 2009), and gang-involved youth in urban centers of the U.S. (Lane, 2019; Stuart, 2020b) are all groups on the periphery of social and economic power adapting to the rise of the network society. Documented in each study of these groups is the ability of members of marginalized communities to bend technology to manage and reshape the conditions by which they are excluded from equal participation in society.

Astride these ethnographic projects, a tradition of survey research has been ongoing to outline the sociodemographic trends that relate the diffusion of digital technology to ongoing patterns of social and economic inequality. This line of research on so-called digital inequality provides a birds-eye view of how being poor, of older age, of minority status, of being a woman, among other statuses, can hold people back in their potential to benefit from the possibilities for social and economic participation that ICTs offer, and indeed demand, of contemporary citizens (Hargittai, 2008; Robinson et al., 2015). Studies in this line of research typically examine their subject matter through statistical analyses of large-scale surveys. There are exceptions that study

digital inequality as a matter of the details of everyday life in particular places (A. Gonzales, 2016; V. S. Katz et al., 2018; Wyche, Simiyu, & Othieno, 2016).

Adopting an ethnographic approach and theoretical contributions from urban sociology, this dissertation aims to expand research on digital inequality by engaging with the perspectives of everyday life for people living in poverty in a large American city. To do so, I examine the contours of everyday life in the digital age for a small, loose-knit group of middle-aged adults who have experienced homelessness while living in north-side Chicago. The findings of this research promise to add to our understanding of how people experience and mitigate digital inequality through everyday struggles and accomplishments in a divided urban neighborhood.

In this chapter, I provide a review of relevant literature to situate the dissertation research within ongoing debates over the role of ICTs in the reproduction of social inequality. First, I discuss the development since the 1990s of research on digital inequality. I show how the sophistication of that line of research has more recently invited the contributions of researchers who are themselves influenced by the urban studies tradition of the Chicago School of Sociology. I outline significant unanswered questions in three areas of digital inequality research – on access to mobile phones, on the use of public computers, and around networking on social media. I show the potential for ethnography to fill in the gaps in our understanding of each phenomenon, setting up my contributions in the three chapters that follow the chapter on methods. To being, I return to the origins of digital inequality research out of earlier studies of the so-called digital divide.

From the Digital Divide to Digital Inequality

The digital divide emerged as a novel social problem in the minds of bureaucrats, scholars, and the media in the mid-1990s. At the time, access to computers and internet connections had

extended beyond their former niches in business, academia, and government to become household commodities. The question was, for which social and economic groups had a computer and dial-up internet connection become a staple of home life and for which groups was access to these technologies beyond reach? The U.S. federal government, under the aegis of the National Telecommunications and Information Agency (NTIA), undertook a survey to find out the rates at which different socioeconomic groups in the U.S. owned computers, telephones, and internet modems in their homes. Summarizing its findings from 1999, The NTIA reported the several demographic categories lagging in access to home-based telecommunications. Demographics included those who were "low-income, Black, Hispanic, or Native American, senior in age, not employed, single-parent (especially female-headed) households, those with little education, and those residing in central cities or especially rural areas" (NTIA, 1999),

As NTIA's early reports were released, the question of inequality around the diffusion of computers and the internet was already emerging as a subject of public concern in the U.S. as well as in Europe, spurring academic investigations (Norris, 2001; J. Van Dijk, 1999) alongside a range of government and nonprofit interventions, such as the funding of computers and internet connections in public libraries and schools and the establishment of "community technology centers" in low-income areas (Bill and Melinda Gates Foundation, 1997; Federal Communications Commission, 1999; Servon & Nelson, 2001). In addition to research in the U.S. and Europe, studies of the Dutch population provide early empirical and conceptual fodder for later research (J. Van Dijk, 1999). Research on the digital divide around the turn of the century solidified around the notion that the spread of ICTs could be a new factor in perpetuating social and economic disadvantage. The initial frame for understanding the digital reproduction of inequality referred to internet "haves" and "have nots", focusing initially on different levels of internet access rather than

different ways of using the internet or different outcomes of uses (Hargittai, 2008; National Telecommunications and Information Administration, 1995; Norris, 2001). Describing information technologies as increasingly key to individuals' economic and political participation, scholars forecasted that gaps in participation and representation that already existed between social groups would expand with the uneven diffusion of digital technologies and capacities (Norris, 2001).

Scholars investigating the digital divide quickly agreed that the binary metaphor of haves and have nots could not account for the complex ways in which the diffusion of internet access and other digital technologies was likely to shape contemporary inequality. Motivating the shift to study divides beyond mere access to the internet was the fact that internet access was reaching population majorities in developed societies and thus the divide between haves and have nots appeared to be closing (J. van Dijk & Hacker, 2003). Additionally, existing theories of media and society suggested that the different ways of engaging with media were as important as having access to media, not to mention the literacies that media required (Tichenor, Donohue, & Olien, 1970). The narrative of a single digital divide further sidestepped questions of structural inequalities, whose effects on digital inclusion might emerge in more refined studies (Strover, 2003).

Working against the foil of the digital divide concept, a number of books and articles appeared in the first years of the 21st century with the goal of reconceptualizing the digital divide to account for the "social embeddedness" of technological processes. Warschauer (2004) wrote against the notion of technology as acting on its own (determinism) and emerging from outside of a social milieu (neutralism). The notion of ICTs as having largely uniform effects on society despite socioeconomic context fit with a view of the digital divide as a transient social problem

that universal access to the internet would ameliorate, as some authors argued (Compaine, 2001). The opposing view of social embeddedness argued that the implications of technology take form alongside and within other social processes, including those that produce inequality (Warschauer, 2004).

As such, one potential outcome of technological diffusion could be the reproduction of existing inequality (Hargittai, 2008). Theorists of social inequality refer to the Matthew effect, where the possession of advantage produces yet more advantage and, thus, the "rich get richer" (Merton, 1968). Researchers of digital inequality describe this process as the *amplification* of inequality by technology, studying the role of digital technology in domains like education (Robinson, 2014; Warschauer, Knobel, & Stone, 2004) and international development (Jenna Burrell, 2012; Toyama, 2011). Bonfadelli (2002) highlighted the potential for technology to amplify inequality in showing that Swiss citizens with less education more often used the internet for entertainment than for educational purposes. Finding in their study evidence for ICTs to both alleviate (utopian) and reproduce (dystopian) social disparities, Katz and Rice (2002) urge a "syntopian" view of the internet's implications.

Building on these conceptual advances, the study of digital inequality emerged to investigate multiple divides or dimensions along which exclusion could result from growing centrality of digital technologies to social, economic, and political life. Researchers clarified the factors involved in the broadened definition of digital inequality and ordered them into different frameworks. Van Dijk (1999) describes four levels of potential inequality through a broadened language of "access." These included the willingness to engage with new technology ("mental access"); the possession of sufficient hardware and connections ("material access"); the skills

necessary to use technology ("skills access"); and the sufficient opportunities to use the internet ("usage access").

In another framework, and in one the earliest mentions of "digital inequality," DiMaggio and Hargittai (2001) suggested five dimensions. People are more or less likely to benefit from internet access, to start, based on their *technical means*, or their access to devices and connections to get online. *Autonomy of internet use* referred to the extent to which people are able to use the internet as they wish or whether they are restricted by policies applied to work computers, for example, or the need to share their computer with others in the home. Internet *skills* addressed differences in people's abilities and knowledge related to using computers and the internet. People would also depend on *social support* for their internet use. Finally, people would use the internet for different *purposes* that would shape the outcomes of their use. In combination, the authors suggest, variation along these factors will shape how people approach internet use, what their experiences online, the "satisfactions they draw" from internet use, and, finally, "their returns to Internet use" such as affects "human capital, social capital, earnings or political efficacy" (DiMaggio & Hargittai, 2001).

Advances in digital inequality research drew on existing theories from media studies of the inequalities that arise around the diffusion of knowledge and information. For example, studies of media literacy lay the groundwork for analyzing differences in digital skills across socioeconomic groups (Koltay, 2011; Litt, 2013). Similarly, the "knowledge gap" hypothesis provided the basis for studying different uses of digital media (Bonfadelli, 2002; Donohue, Tichenor, & Olien, 1975; J. van Dijk & Hacker, 2003). The knowledge gap theory suggests that people of different socioeconomic backgrounds will benefit differently from access to the same media resources – such as television, radio, and newspapers – based on how they consumed these resources (Tichenor

et al., 1970). Applied to the internet, studies showed that people with lower socioeconomic backgrounds drew more on the entertainment potential of these media sources rather than the informational potential, drawing concerns over the potential for people in these groups to leverage the internet to build social, economic, or political status (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009).

Another way of organizing the expanding concepts of digital inequality was to describe inequality based on three levels. DiMaggio and colleagues (2004) describe access, skills and uses, and the outcomes of internet uses as such levels (DiMaggio et al., 2004a). Beyond whether people have the sufficient hardware and service to get online (first-level divide), the researchers argued, digital inequality would likely to result additionally from how well people can use computers and the internet and how they ultimately choose or are predisposed to using them (second-level divides), leading to different outcomes for social and economic participation (third-level divide) (DiMaggio et al., 2004a). The study of digital inequality thus considers the factors that mediate the relationships between access to ICTs, how they are used, and the life outcomes for particular uses, a framework researchers continue to draw on as technology advances (Scheerder et al., 2017; A. J. A. M. Van Deursen, Helsper, Eynon, & Van Dijk, 2017).

Digital inequality research over several decades provides evidence that the potential to benefit from ICTs is tilted against those who are already disadvantaged by socioeconomic status, including income, race, age, and gender (Robinson et al., 2015; A. J. A. M. Van Deursen et al., 2017). Findings are often nuanced around the question of whether digital inequality maps evenly onto existing lines of differences. For example, digital skills are typically found to be higher among the more educated, younger, and wealthier (Hargittai, 2002; Hargittai & Shafer, 2006; Robinson et al., 2015). Among young people, however, levels of skill vary significantly based on

socioeconomic status (Hargittai, 2010; Selwyn, 2009). While women tend to show equal levels of internet access and digital skills in developed countries, women tend to perceive themselves as less skilled in internet use and this may explain their relative lack of participation in online collaborations like Wikipedia (Hargittai & Shafer, 2006; Hargittai & Shaw, 2015). Similarly, differences in internet use by race have been shown to disappear among college students who have similar levels of internet experience (Shelia R Cotten & Jelenewicz, 2006). Yet people of low-income and minority status have been shown to more often take advantage of the social and entertainment uses of technology than the informational and educational uses when compared to people of higher incomes and majority status (Tsetsi & Rains, 2017a; A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009).

These nuances existing within and across the typical socioeconomic divides help provide the link to community-level research that I advocate for in the following section and in the three case studies from my fieldwork. Examining people's attitudes and motivations toward technology is one area in which more targeted survey research helps us illuminate the most salient barriers to digital inclusion. For example, Mossberger and colleagues (2003) conducted a large-scale national survey in the U.S. that drew heavily on respondents from high-poverty census tracts, in additional to a general population sample. The authors were able to show how, while being poor and having less educational attainment predicted using the internet less for employment, being of minority status (African American or Latinx), being a woman, and being unemployed predicted being "particularly sensitive" toward the connection of technology and opportunity. As an illustration, African Americans, though they lagged in means of access, were more likely than white respondents to have used the internet for a job search or taken a course online. The authors conclude that motivation is less the matter when it comes to digital exclusion than is robust access

to technology and skills training. The parsing of attitudes toward technology in minority communities in such studies provides the grounding for evidence-based interventions. Testing models of digital skills training, Seo and colleagues (2019), for example, draw out and build on the existing motivations of their target population – older, African American adults – to tailor an intervention within their participants' community.

Advancing Theory around Digital Inequality

As findings became more nuanced in the study of digital inequality in the 2000s, the store of empirical observations appeared to be growing without similar progress in theory (van Dijk 2005). In response, scholars began to draw more closely on the sociological literature around status and inequality (Gilbert, 2010; Ignatow & Robinson, 2017; Robinson, 2009). The concept of digital or technical capital, for example, draws on Pierre Bourdieu's notion that social advantage advances not only through economic resources and social networks but through the passing on of mental habits and ways of acting particular to a social class (Bourdieu, 1986; Ignatow & Robinson, 2017; Selwyn, 2004). The theory of *habitus* is helpful for explaining the why people with access to the same resources or skills will put them to different use (Hargittai & Hinnant, 2008a; Y. J. Park, 2015; Robinson et al., 2015). How people approached the Internet, and in turn, how their use of the Internet affected their life chances, would be a result of this broader socialization based on class. Thus, youth whose parents had not graduated college would be less likely to "know" that the Internet is for doing homework, rather than playing games (Y. J. Park, 2015), due to the ways of thinking they inherited through their parents.

Gender differences in Internet use could similarly be explained by the broader context of socialization. Given the expectation that women be caregivers and maintain social support

networks, it is not surprising that women report turning to the Internet more often for communication and social support than for purposes related to gaining new skills that could aid in employment (S. R. Cotten, Anderson, & Tufekci, 2009; Shelia R Cotten & Jelenewicz, 2006). In another formulation from research on gender, men appear to approach computer technology as a "toy" rather than "tool," which meant that they engaged in the kind of tinkering that improved their skills, where women tended to use technology for a particular established purpose (Kelan, 2007). These different dispositions toward technology and the socialization behind them may help explain the relative dearth of women in IT fields, both in employment and educational programs (Robinson et al., 2015).

Yet other concepts emerged to bridge the study of digital technology use with broader processes of social stratification. The "social diversification" hypothesis built on network theories of inequality, which focus on the networks of social ties that a person has and the relevant resources available therein (DiMaggio & Garip, 2012; Mesch, 2012). The hypothesis is that the internet could open up the social networks of members of disadvantaged groups by allowing communication to cross lines of ethnicity and race in a way that face to face communication typically does not (Mesch, 2012). A study of business owners in Israel showed that those in the Arab minority who used the Internet were more often in contact with members of the Jewish majority than those who did not use the Internet, supporting the social diversification hypothesis (Arie & Mesch, 2016). The use of the internet appears to coincide with racial diversification in the U.S. context, as well. A study found that African Americans were more diverse in who they communicated with when they used the internet for that communication rather than doing so face to face.

Thus, the study of how the internet diffuses across societies is productive for understanding broader patterns of inequality. However, digital inequality research can translate its findings most convincingly when theories are brought to bear that speak to longstanding academic investigations into social inequality. Future research on digital inequality should advance empirical observations while more fully incorporating theories that have been developed in the broader study of inequality, while adapting them to the age of digital technologies.

Technology and Community: Digital Inequality Meets Urban Sociology

As the study of digital inequality has expanded, researchers have sought to address questions of technology and social stratification in new ways. What we have learned of digital inequality from the initial decades of research stems primarily through statistical analysis of large-scale surveys. By evaluating the responses of hundreds or thousands of individuals, we infer, for example, how women and men and young and old across levels of education and income compare in their internet skills.

In an area of research focused largely on generalizable accounts of the interactions of individual-level variables, qualitative and place-based approaches contribute by looking at social stratification through the lens of technology use in everyday life in local settings. Interviews and observations conducted in naturalistic settings provide a lens into people's attitudes and practices that are often difficult to ascertain from survey research (J. Lofland, Snow, Anderson, & Lofland, 2006). Qualitative, place-based studies of technology use are common in the broader study of new media (e.g., Gordon & de Souza e Silva, 2011; K. Hampton & Wellman, 2003; Humphreys, 2010; Rickman, 2018). Such studies are less commonly and explicitly addressed to the concerns of social stratification in the digital age. An important exception is in studies of mobile phones use in

developing countries (de Souza e Silva, Sutko, Salis, & de Souza e Silva, 2011; Donner, 2015; Ureta, 2008; Wyche et al., 2016), studies which I build on to explore the dynamics of phone access and use by unstably housed adults in Chicago.

Shifting the research approach from one of aggregated individuals to people in place in everyday life allows researchers to interrogate and add texture to existing accounts of how inequality is reproduced in the network society. The understanding of the role of physical place in digital media use has a varied history in new media scholarship. One the one hand, physical localities are thought to be made increasingly irrelevant by new media technologies, thed diffusion of which facilitate globalization (Appadurai, 1990) and the "separation of social space from physical space" (Meyrowitz, 1986, p. 115). On the other hand, scholars observe that in using new media technologies, people are often addressing matters of local concern, such as passing along information about social events and safety concerns within a neighborhood (K. Hampton & Wellman, 2003). It is the latter focus on the intermingling of technology use with the local settings and local concerns that drives the interest of this research into urban poverty in north side Chicago.

There are a number of ways that bringing place-based, qualitative research into conversation with the concerns of digital inequality can advance our state of knowledge. Through in-depth interviews with immigrant families in the U.S., Katz and Gonzalez (2018) show how children familiarize their parents with technology and act as brokers more broadly between parents and community institutions offering digital training. Digital inequality may also be a matter of overcoming social constraints within one's community. In "Out in the Country," Gray (2009) embarks on "in-situ media research," through ethnography, to show how rural youth come to understand and relate to a queer identity. Gray observes that youth come to associate with

queerness with the aid of online media and forums, in response to the lack of public recognition of queer identities in rural areas.

Placed-based and qualitative approaches to digital inequality research can help digital inequality scholars unearth overseen dynamics not only in how digital technologies are used but in the inequalities that remain in how people access the internet. While we know that coming from a lower socioeconomic background corresponds with less reliable access to the internet (Dailey, Bryne, Powell, Karaganis, & Chung, 2010; Zickuhr & Smith, 2012), we know less about how people approach the challenge of maintaining an internet connection when relying on shared and public sources of internet access in a low-income area. By conducting qualitative interviews with urban residents of two U.S. cities, Gonzales (2016) illustrates the dynamics of "technology maintenance" that allows for inferior technology access to persist among low-income and minority individuals even as statistics suggest broad access to phones and internet has been reached.

Looking to incorporate community factors into digital inequality research, digital scholars and sociologists are calling for place-based approaches to the study of digital inequality, such as those that can account for the specifically urban contours of inequality (Gilbert, 2010; V. S. Katz & Hampton, 2016; Lane, 2019). These calls draw digital inequality research into conversation with the sociological study of urban life and urban inequality. In the following section, I sketch the influence of urban sociology on new media scholarship, broadly, and suggest collective efficacy as a means to bring the fields of research together. After proposing a combination of these fields of research, I then move on to introduce the case studies for this dissertation of mobile phone access, public computer use, and social media use for unstably housed adults in a large U.S. city.

From Chicago School to Digital Inequality through Collective Efficacy

A tradition of research known as the Chicago School of Sociology emerged in the 1920s to investigate the city as a setting for social and economic life (R. E. Park & Burgess, 1925). Among other areas of focus, sociologists in the Chicago School tradition have sought to better understand the social fabric of low-income, urban communities as a way to critique narratives that take poverty to be a natural division between deserving and undeserving classes or social groups (E. Anderson, 1981; Liebow, 1967; R. E. Park & Burgess, 1925). Race is a central concern, as African American and other minority communities have been subject to political and economic segregation and discrimination over generations (Drake & Cayton, 1945; Wilson, 2012). Homelessness is a longstanding area of investigation, with research identifying homelessness as a condition of larger socioeconomic forces and forming its own subcultures (N. Anderson, 1923). Across studies of urban life and social stratification, scholars engage with the question of how socioeconomic marginalization shapes the efforts of people in poverty to survive and lead lives of dignity (E. Anderson, 1990; Ehrenreich, 2001; Stack, 1975).

Though broadcast and print media were among the primary concerns of the early Chicago School sociologists, urban sociologists have dedicated fewer studies to the intermediary role of digital technologies in shaping urban life. One way to account for the disconnect is in the different conventional starting points for urban and digital research on communities. Urban sociologists conventionally understand a community as a set of relationships grounded in a shared physical setting, such as a particular neighborhood within a city at large. Early research on the internet and communities, however, tended to focus on physically distant individuals who built a sense of togetherness through interactions taking place entirely, or almost entirely, online (Boellstorff, 2008; Rheingold, 1993). Bridging the gap in earlier decades are studies such as Wellman's (2001) comparison of the physical and "cyber" interpersonal networks of Toronto

residents and Hampton and Wellman's (2003) analysis of interactions over a neighborhood internet chat forum.

Communication researchers are calling for an ecological or place-based approach to the study of digital inequality, linking the digital agenda with that of urban sociologists (V. S. Katz & Hampton, 2016; Lane, 2019). To bring together the study of internet use and social life in low-income communities, one promising area of overlap is the study of a collective efficacy. Collective efficacy is the ability of a community through its residents and local institutions to maintain social order and provide its residents social support (Sampson, 2006; Wellman & Wortley, 1990). Collective efficacy can be seen as a factor of a physically bound community's internal cohesion and operation and of its ability to leverage resources through ties outside the community (Sampson, 2006). In a community with high collective efficacy, neighbors would, for example, aid each other with childcare, intervene to prevent acts of vandalism, or unite to prevent the closing of a local school (Sampson, 2006).

Digital technologies such as email, community forums, social media, and smartphones stand to influence collective efficacy in one of several ways. The first involves how community members relate to one another. Smartphones and Internet access may permit greater social awareness among community members, building or activating bridges between physically proximate but social dispersed individuals (K. Hampton & Wellman, 2003). Evaluating the use of a locative mobile phone app, Humphreys (2010) concludes that sharing location and social information over an app establishes commonalities among strangers and acquaintances sharing public spaces. Online community forums and social media platforms have the ability to make interests and needs more visible among latent and weak ties of geographic proximity (Lampe, Ellison, & Steinfield, 2007; Lu & Hampton, 2017). There is evidence from the early years of the

21st century that residents of neighborhoods with relatively higher proportions of internet users were more engaged around community issues (K. Hampton & Wellman, 2003). Not all the effects of digital interaction and communication within neighborhoods can be neatly summarized as pro-social. As studies of gang-involved youth illustrate, posts on social media can amplify neighborhood conflicts and provide new fodder for police surveillance, as well as enhance community building and facilitate interventions into neighborhood conflicts from parents and educators (Lane, 2016b; Stevens, Gilliard-Matthews, Dunaev, Woods, & Brawner, 2017; Stuart, 2020a).

The second way that ICTs might influence the collective efficacy of urban neighborhoods is to connect community members to social ties and resources located far outside their locale. Sociologists describe how disadvantage is entrenched through network homophily: marginalized people tend to know primarily other marginalized people (DiMaggio & Garip, 2012), particularly in the case of urban segregation. Disadvantaged urban communities tend to have insular networks of strong ties, which allow cooperation around meeting basic needs but do less for collective action and resource acquisition (Briggs, 1998; Sampson, 2012; Wilson, 2012). Under this assumption, members of such a community might take advantage of the Internet to expand their ties and thus resources and influence outside the immediate physical setting (K. N. Hampton, 2010). While relatively few studies have tested the hypothesis, existing research suggests that members of minority populations have more diverse contacts when they communicate by internet rather than face-to-face or by telephone, offering support for the diversification hypothesis (Arie & Mesch, 2016; A. L. Gonzales, 2017).

Studying Digital Inequality through Urban Ethnography

Digital and urban scholarship can thus help us examine how the adoption and use of ICTs shapes the collective efficacy of disadvantaged urban neighborhoods as well as the workings of the support networks of people living within them. In this dissertation, I address questions of digital inequality from the community level by focusing on the everyday lives of unstably housed residents of a particular disadvantaged community. I explore the social and institutional resources available to my participants as they navigate access to the internet in the neighborhood and emphasize external ties my participants sought through social media to supplement resources available to them in their neighborhood.

In the course of my fieldwork, I identified three areas of concern to digital inequality that reflect in the experiences of the unstably housed adults I met in north side Chicago. I address mobile internet access and phone accumulation in Chapter 3, public computer access and "usage gaps" in Chapter 4, and social capital and social media use in Chapter 5. I provide a brief literature review in each chapter that situates each study specifically. In the following sections, I provide a broader treatment of each area in order to illustrate how ethnographic research stands to inform gaps in existing research.

Studying Mobile Phones and Inequality

In Chapter 3, I examine the practice among my participants of keeping multiple phones in their possession. At odds with a political discourse which frames this practice as profligate or even criminal, I show how my participants do so to maintain a basic level of voice, text, and mobile internet service in light of the economic and social pressures they face in the context of homelessness. Chapter 3 provides a case study of the role of mobile phones in shaping digital inequality, focusing on the particular question of mobile phone access and government subsidies.

How does the wide availability of mobile phones shift the terms of access to ICTs more broadly for people in poverty? How have scholars of digital inequality addressed mobile phones as cheap means of communication and internet service for the poor, in the U.S. and abroad? In the following section, I review the broader area of study around mobile phones and digital inequality. I show how scholars have framed mobile phones as both safety nets for digital inclusion and liabilities for people who rely on them to go online. Showing gaps in our knowledge of how people in poverty maintain the mobile phone access, I illustrate the potential for community-based research to expand our understanding.

Mobile Phones and Inequality

Mobile phones have diffused across the globe faster than any other communication technology in history (Castells, Fernandez-Ardevol, Qiu, & Sey, 2007). Subscriptions for mobile phone service now exceed the global population, due in part to multiply subscribing individuals (International Telecommunications Union, 2016b). It is projected that by 2022, 90 percent of all mobile subscriptions will be for Internet-enabled "smartphones," which are already in the majority (Ericsson, 2016). In the U.S., more time is spent on digital activity on smartphones than on computers (ComScore, 2015). Mobile phones are credited with expediting Internet access for the global poor (see Howard 2007), though researchers warn of dependence on the devices among low-income and minority users in the U.S. (Napoli & Obar, 2014; A. Smith, 2015).

What do we know about the use of mobile phones that translates into opportunities for social and economic advancement? Does the widespread uptake of mobile telephony and mobile Internet represent a step forward or back for the alleviation of socioeconomic disparities? In the

following sections, I describe how mobile phones have been studied as part of the framework of digital inequality research through questions of access and use.

Divides in Mobile Phone Access

In terms of access, mobile phones are notable as an information and communication technology (ICT) for the portion of people who have them. The degree of mobile phone penetration across social groups, economic classes, and geographic region is, considering the more modest diffusion rates of other ICTs, itself taken as a measure of relative equality (Castells et al., 2007; Donner, 2008). However, the degree of mobile phone penetration remains stratified across higher- and lower-income countries, and across gender and level of education within most countries (International Telecommunications Union [ITU], 2016a). Additionally, insufficient data from least-developed countries makes estimations of access difficult for populations of particular interest to inequality researchers (ITU, 2016a).

Despite the sense that mobile phone adoption is widespread among the poor, researchers point to discrepancies between the measures of mobile phone access and its reality, particularly for marginalized populations. Two trends investigated are of shared access and instability of access. The fact that individuals, typically in lesser-developed countries, often share ownership and use of a mobile phone with others may be seen as evidence that reports based on individual ownership underestimate the degree of access (ITU, 2016b). However, research points to the disadvantages of phone sharing for the likelihood of benefitting from access. In interviews with low-income Chilean families, Ureta (2008) finds that a mobile phone when shared amounts to a landline phone, in that families kept the device at home to enable shared use. Phone sharing is found to be gendered, with men more often owning and lending phones to their wives and other

women (Blumenstock & Eagle, 2010; Jenna Burrell, 2010). Inequalities in access as a result of phone sharing refer back to the barrier of affordability of mobile phones and mobile phone service for portions of the global poor (ITU, 2016a).

In addition to phone sharing, instability of mobile phone access has been studied as a lingering concern of digital inequality (Donner et al., 2011; Gonzales, 2014). In interviews with low-income residents of New York City, Gonzales (2014) finds that mobile access for the poor is "dependably" unstable, in that low-income users come to expect periodic disconnection from their devices due to several factors. The first relates to the quality of hardware. Mobiles are often second-hand, shared, or government-subsidized models, subject to frequent breakdown. Dysfunction is typical in batteries, screens, sound quality, and other features. The second factor is a matter of stable access over time. Respondents regularly lose service due to inability to pay their phone bill. Moreover, mobile phones are regularly reported lost, broken, or stolen, a report consistent with the responses of low-income users in other contexts (Donner, Gitau, & Marsden, 2011; Le Dantec & Edwards, 2008).

The Ongoing Role of Voice and Text

Research suggests that mobile voice and text remain critical features of the mobile phone for disadvantaged populations. Rice and Katz (2003) argue that mobile phones are uniquely situated for "contacting government representatives and resources, seeking job opportunities, citizen mobilization, social integration, and spreading messages of social concern" (ibid, 603). Mobile phones may have "distinct advantages in areas that might make the most difference to the digitally disadvantaged." (ibid). These include "remote accomplishment and pursuit of jobs" and "quick-time coordination of personal or household activities" (ibid). The authors further

emphasize personal safety. Here the mobile is "far superior to the Internet and the regular telephone" for alerting authorities to personal threats or emergencies (ibid).

More recent findings confirm the ongoing importance of non-Internet mobile phone features. Gonzales (2014) examines the role of cell phones in the management personal health and safety for individuals low-income, urban communities, citing research that shows that lower income populations are more likely to suffer threats to health and safety (Blau & Blau, 1982; Pantazis, 2000) and that social support networks are of particular utility for mitigating these threats in low-income urban areas (Sampson, Raudenbush, & Earls, 1997). Respondents in Gonzales (2014) indicated that phone calls ameliorated threats to personal mental health and community health and safety. Participants emphasized the capacity cell phones gave them to contact mental health professionals and manage the location of their children. They described using cell phones to report health crisis, traffic accidents, and gang activity. Outside of active use, the low-income interviewees in the study emphasized the importance of reassurance of cell phone ownership, unique from landline and pay phones (A. Gonzales, 2014).

Smartphone Dependence and the Mobile "Underclass"

A growing body of research focuses on a proportion of U.S. citizens who have Internet access on their phones but not at home, a population referred to as "smartphone dependent" (A. Smith, 2015). Drawing on Pew data from 2012, Tsetsi and Rains (2017) explore the sociodemographics of mobile-only Internet users and compare usage patterns of smartphone users more broadly. The researchers find that those marginalized by race, income, and education are more likely to depend on a smartphone for Internet access, supporting the hypothesis of a "device divide" in how different social groups access and, as a result, use the internet (Pearce &

Rice, 2013). Usage differences are observed among smartphone users by socioeconomic status, in support of the usage gap hypothesis (Van Dijk, 2005). In line with this hypothesis, minorities and younger people were more likely than their counterparts to engage in social activities on smartphones, while older and higher-income users were more likely to pursue news or information activities (Tsetsi and Rains, 2017).

Increasing attention also examines the hypothesis that technological characteristics of the mobile phone limit or drive particular patterns of mobile Internet use (Donner et al., 2011; Gitau et al., 2010; Napoli and Obar, 2014; Wang and Liu, 2017). Donner and colleagues (2011) draw attention to mobile-only Internet use in the resource-constrained context of a women's cooperative in South Africa. The researchers offered a group of participants with no computer experience access to the Internet on their mobile phones. Participants experienced barriers in accessing particular websites and services through their mobiles. Though mobile email allowed initial contact with employers, limited functionality prevented users from uploading a CV to a job application. Noting that mobile phones were designed for higher-income markets where access to computers is more widespread, the authors conclude that ICT poverty in relation to mobile-only use means lacking the necessary components of a communication repertoire (Licoppe, 2003) or ecology (Nardi & O'Day, 1999).

In the U.S. context Napoli and Obar (2014) draw on technical literature, usage studies, and development and digital inequality research to argue that mobile phones are technologically limited in ways that lead to less productive Internet use. On the "demand" side, memory, storage capacity, and connection speed are "intrinsically limited" on mobile devices relative to personal computers (PCs), by nature of their hardware (Finamore et al. 2011, 345). On the "supply" side, Internet content is more often optimized for PC access. Content designed for mobile phones is

delivered differently than on a PC. For example, mobile “apps” and the brand-specific platforms that deliver them restrict conditions for browsing and information-seeking relative to PC-based Web browser. Mobile delivery platforms of this kind result in “a much less open Internet ecosystem” for mobile users (Napoli and Obar 2014, 327).

Research cited in Napoli and Obar (2014) indicates that, based on available technology in the mid-2000’s, mobile users are stymied in their attempts to search for information, browse the web, and create content. For example, web searches on mobile phones are less sophisticated and more often fail (Baeza-Yates, Dupret, & Velasco, 2007; Church, Smyth, Bradley, & Cotter, 2008; Church, Smyth, Cotter, & Bradley, 2007). Usage studies indicate a lower quantity and breadth of websites visited on mobiles relative to PCs (Ishii, 2004). Studies show that users type slower, enter less text, and create less complex documents on mobile interfaces relative to PCs (Yesilada, Harper, Chen, & Trewin, 2010).

Napoli and Obar (2014) go further to argue that the limitations of mobile use stemming from technological characteristics may have direct links to missed opportunities for advancing status through Internet use. The relative difficulty or lack of sophistication of mobile search may have potential direct economic impacts, as studies link ease in Web searching with access to a cheaper and greater variety of goods, as well as lower levels of unemployment (Ghose et al., 2013). The tendency of mobile users to consume rather than produce content (Ghose and Han, 2011; Hinman et al., 2008) risks an exacerbation of "participation divides" with those who have PC Internet access, a key dimension in assessing who benefits from Internet access (Blank 2003, Hargittai & Waejko 2008).

While studies in previous years have suggested that mobile devices are technologically limited in ways that prevent more intensive, content-production and work-related activities

(Donner et al., 2011; Napoli and Obar, 2014), it is possible that as the capacities of smartphones increase, the device divide in usage will narrow. For example, it is notable that the technical barrier to completing a job application by mobile phone, mentioned in Donner and colleagues (2011), namely, the inability to upload a resume in pdf file, is obviated by newer model smartphones and web-based applications (Schindler, 2017). The increasing sophistication of "task-supportive" (Donner, 2015) mobile applications may lead users to prefer smartphones for activities formerly possible only on PCs. Nevertheless, advanced digital technologies are generally unavailable to disadvantaged populations at the time of their introduction (Donner, 2015: 43; Napoli and Obar, 2014). Moreover, the device divide extends to use conditions, as low-income populations, who experience regular loss of service, hardware dysfunction, and device theft (Donner et al. 2011; Gonzales 2014, 2016).

Future Research on Mobile Phones and Inequality

Trends in phone adoption and use suggest that smartphones have a central role to play in the digital futures of the socioeconomically marginalized, both in the developing world and in affluent societies (Ericsson, 2016; International Telecommunications Union, 2016b; A. Smith, 2015). To keep up, researchers need to think critically about how to adapt their approaches. Even as researchers can draw from an increasingly broad and sophisticated set of tools for collecting data on mobile phone use (Büscher & Urry, 2009; Calabrese, Ferrari, & Blondel, 2014; Sohn, 2008), where and how researchers look at the use of mobile phones within conditions of disadvantage matters for how we understand the outcomes for socioeconomic inequality. The study of mobile phones and inequality will benefit from putting existing frameworks into conversation with emerging methods and approaches, while drawing closely on related research in the study of socioeconomic disadvantage.

Digital inequality research offers a framework for tackling the range of inquiries necessary to animate future contributions, drawing lines as it does through questions of access to popular uses to outcomes of those uses (DiMaggio et al., 2004a; J. van Dijk & Hacker, 2003). How members of disadvantaged groups manage mobile phone access, and the effect for social and digital participation more broadly, remains an open question. Research must acknowledge that access inequality manifests uniquely for the mobile phone in relation to computers or the Internet, at large. The extent of mobile penetration cannot be taken as a standalone measure of access equality, due to both statistical unreliability in many developing countries (International Telecommunications Union, 2016b) and the variability in access conditions that marginalized users encounter (A. Gonzales, 2014; Napoli & Obar, 2014). Researchers cannot take for granted the quality or dependability of physical, "first-level" mobile phone access for low-income populations, neither in developed nor developing countries, even in an age of apparently ubiquitous access (Donner et al., 2011; A. Gonzales, 2014).

The observation of device sharing and support networks as critical elements of low-income access to mobile phone technology provide an important area of overlap between sociocultural and technological studies across developed and developing settings (A. Gonzales, 2014; Ureta, 2008). In Chapter 3, I address how practices like sharing and possessing multiple phones fulfills the need to maintain connection to voice, text, and internet for the unstably housed adults of Chicago. I offer the concept of "phone accumulation" to the literature while showing how public discourse and government policy shapes people's ability to adapt to the shifting demands of technology access.

Though it is beyond the scope of this dissertation, researchers of mobile communication stand to further contribute to the question of social media use among disadvantaged communities

by investigating the coupling of social media with the smartphone. Mobile phones have become the preferred medium for social media, in large part due to native applications which take advantage of the unique affordances of the mobile phone, from its mobility to the ability to record photos and videos to location awareness (Bayer, Ellison, Schoenebeck, & Falk, 2015; Donner, 2015; Sutko & de Souza e Silva, 2011). The shift requires new means of assessing social media use as a means for the alleviation of conditions of disadvantage. For example, research has only begun to explore the implications for communities living in areas prone to violence, both at the hands of gangs and police, of an ability to record and broadcast media from personal devices as events unfold (Bock, 2016; Bonilla & Rosa, 2015; A. Gonzales, 2014; Neumayer & Stald, 2014; Patton, Lane, Leonard, Macbeth, & Smith-Lee, 2016). We know little about how the smartphone as a locative tool and token of reassurance of personal security influences the relationship of marginalized communities to urban space (Arie & Mesch, 2016; Schwanen & Kwan, 2008; Ureta, 2008). The most promising research in these areas will take advantage of the range of tools developed for collecting mobile data (Calabrese et al., 2014; Eagle, Pentland, & Lazer, 2009; Sheller & Urry, 2006) while engaging directly with poor communities to understand shifts in how disadvantaged communities network and relate to urban space by dint of smartphone access (Horst & Miller, 2005; Lane, 2016b).

Usage Gaps and the Instrumental Paradigm

In Chapter 4, I examine two community institutions for the different social and technological environments they offer to low-income residents of the Chicago neighborhood under examination. Rather than focusing on the use of public computers for job applications, housing searches, and online education, I highlight how even those in the more dire economic

circumstances spend much time watching music videos and scrolling social media. These latter kinds of activities go against the grain of a broader political discourse around public technology investments and they fit uneasily into the way that digital inequality researchers evaluate internet use across socioeconomic groups. In this section, I explore both of these areas as a means to animate the study in Chapter 4.

How did public internet access at the library come to be? What ideas of the internet were knitted into the process? How has scholarship contributed to the view evident in the policy discourse? The history of the public library as a site of internet access for the public extends back to the mid-1990s. Through an act of law, the U.S. government spelled out its role in supporting the expansion of internet connectivity to the broader public, notably underserved regions, socioeconomic groups, and public services. New policies and bureaucratic processes emerged to channel funding toward the goal. Libraries emerged as the primary point of internet access offered to the broad public and anchored at a public facility. In the process, expanding internet access to people who could not afford it was imagined as resulting in particular benefits — for the economy, political participation, and health — for individuals and the nation. Ideas backed policy in a way that shapes the experiences of low-income Americans who go to libraries in search of Internet access today. Let us return to the mid-1990s to trace that history.

Universal Service: "Myth" into Policy Reality

There is no obvious definition of a given social problem nor a natural role for the government in the alleviation of a social problem (Schneider 1985). The universal service concept which underlies the provision of public internet access such as at public libraries emerges from "prosaic motives and great ideals" across government, business, and civic actors,

including scholars (Sawhney, 1994). As Mueller (1997) shows, universal service – the idea that essential telecommunications services should be made available to all Americans at an affordable price -- emerged as a business imperative out of the expanding market for telephone service. The concept arose as far back as 1907 out of the motivations of telephone companies to monopolize geographies of service at odds with existing anti-trust regulations. Over time, universal service came first to represent a concern not only with geographic coverage but with affordability of telephone services for households. The expanded definition was enshrined in the Telecommunications Act of 1996. Second, in the same act, Congress defined universal service beyond telephony to refer to an "evolving level of telecommunications services." This definition cleared the way to subsidize the cost of broadband internet connections for public institutions as well as mobile phone service and broadband internet for households (M. Mueller, 1997).

The 1996 Act also set out process by which universal service initiatives were to be funded. The Federal Communications Commission (FCC) incorporated the non-governmental Universal Service Administration Company (USAC) to administer such initiatives and fund them by collecting fees from telecommunications companies. These fees have been typically passed on to customers, as a surcharge on the service bills of individual subscribers (Government Accountability Office, 2017). Called the Universal Service Fund (USF), this pot of money joined the legal and bureaucratic mechanisms codified in the 1996 Act to undergird a set of digital-era universal services initiatives.

In 1997, the newly incorporated USAC announced three initiatives to promote internet universal service. The first two targeted public and nonprofit institutions. The first was the "Schools and Libraries" program, commonly called E-rate ("education rate"). Through E-rate, the USAC funded portions of the costs associated with establishing and maintaining

telecommunications networks, including internet service, at public libraries and schools. Another program called “Rural Healthcare” did the same for hospitals and health-related organizations in rural areas. Meanwhile, two other programs targeted geographic coverage and household affordability. The “High Cost” program incentivized telecoms to build-out networks in “rural and remote” areas. Finally, the “Low-Income” program subsidized phone and internet service at the household level, though funding discounts on individual subscriber bills (Federal Communications Commission, n.d.).

The E-rate program is unique among the initiatives and the library unique within E-rate program in terms of the kind of access that it makes available and for whom. The High-Cost and Low-Income programs facilitate coverage and costs through commercial avenues, while the Rural Healthcare program provides institutional access not meant for the general public. The Libraries program, rather, supports the existence of thousands of points of access located at public institutions. These points of access are available, in principle, to any member of the public.

Second, the library provides these public, institutionally located points of access with an eye toward economically underserved areas. The amount of funding provided to a library or school through E-rate is scaled based on the number of students in the same district who quality for free or reduced lunch (Universal Service Administrative Company, 2000). Thus, universal service policy supports the library as the institutional node for public internet access that targets the broadest public, with an emphasis on ensuring that form of access is available in low-income areas.

The investments in E-rate have been significant. Over 10,000 public libraries and over 100,000 schools across the country have benefited from funding since its inception (USAC),

2018). Several billion dollars have been spent each year, drawn from the USF and, ultimately, the phone and internet bills of paid subscribers. In each of its first two years, 1997 and 1998, the E-rate program allocated over $1.7 billion to subsidize telecommunications networks and internet service in 5,800 libraries and 640,000 schools (Universal Service Administrative Company, 2000). The FCC "modernized" the E-rate program in 2014 to begin upgrading libraries and schools to wi-fi networks and high-speed (gigabit) internet service. In 2017, the FCC counted 11,475 libraries and 104,722 schools among the beneficiaries of funding through E-rate, at an expense of $2.6 billion (USAC, 2018). In 2016, there were an estimated 294,216 public-access internet computers at libraries around the U.S. (The Institute of Museum and Library Services, 2019). Americans entered into over 276 million sessions on those computers over 2016 (ibid).

People of different social groups rely more and less on library access to the internet. The Pew Research Center (Horrigan, 2016) has conducted three nation-wide surveys, in 2012, 2015, and 2016, asking Americans about their attitudes toward and uses of the library. Consistently, just under a third of Americans who visit the library use a library computer or the internet there. In 2015, 27% of Americans overall said that they used a computer or the internet on their last visit to the library. Meanwhile, 38% of African Americans, 32% of Hispanics, and 31% of those with annual incomes at or under $30,000 said they did so (Horrigan, 2016).

These numbers reflect more generally the rate at which minority and low-income Americans say they rely on libraries. Visiting rates among these groups are higher than average. They are not, however, the highest among groups identified by Pew (Horrigan, 2016). In 2016, African Americans (52%) and low-income Americans (50%) were slightly more likely than average (48%) to say they visited a library in the last year. Those who were more likely to have

said they visited include people with college degrees (59%), women (47%), parents (55%), and younger adults, ages 16-29 (55%). Though visiting rates among these groups are not the highest, low-income respondents, Hispanics and African Americans are most likely to say that the closing of a local library would have "a major impact" on them or their families (Horrigan, 2015). Thus, minority and low-income groups perceive the library as more significant to their lives overall.

Through universal service, the digital divide emerged as a social problem and became the "myth made law" (M. Mueller, 1997). The U.S. federal government aided in connecting thousands of public libraries around the country to the internet. By the second decade of the 21st century, millions of Americans were visiting the library to take advantage of this access (The Institute of Museum and Library Services, 2019). The question remains, however: What notions justify these significant and ongoing investments into universal access to the internet? How do the warrants for public investment filter down into the local settings where members of low-income communities take advantage of public internet access?

Public Access and the Productive Internet

The late 1990s marked the arrival of federal subsidies for public internet access at libraries around the U.S. As mentioned, funding did not arrive tabula rasa but emerged from particular ways of thinking about the internet and society. The "digital divide" referred to the social inequity of internet access spreading unevenly across socioeconomic groups and geographic locations. The government had a role in equalizing access due to its universal service obligations, clarified and expanded for the digital age in the Telecommunications Act of 1996.

Yet, support for universal service in the internet era was not so simple. Policymakers and advocates needed to justify the necessary bureaucratic shifts and public expenditures. Doing so,

elite actors did more than merely note the differential spread of internet access across groups and geographies. Such might have emerged from an equity or welfare framework to public provision (Rapp, 1996). Rather, advocates in government and in the academy turned to evaluating and expressing the benefits of internet access to individuals and the nation at large.

Internet access through public libraries would benefit individuals and the broader society through economic productivity and education. The notion that wider access to the internet spurs economic productivity is central to messaging across government and private actors who support universal service initiatives. In 1999, the FCC released its first report on the state of broadband access in the U.S. “Widespread access to broadband capability can increase our nation's productivity and create jobs. Access to broadband can also meaningfully improve our educational, social, and health care services” (Federal Communications Commission, 1999). These lines reflect the intended economic or otherwise instrumental function of the billions of dollars the FCC was beginning to allocate for the purpose of expanding broadband access. The national discourse is reflected locally where investments land. In a study of a computer center installed for children at a library serving a low-income community outside of San Francisco, Sanddvig (2003) summarizes the relevant policy discourses. The computers were said to provide their users, children, “access to skills acquisition, job training, and technological literacy” (Sandvig, 2003).

Private foundations also had a stake in supporting public internet access at libraries. The Bill and Melinda Gates Foundation provided over $1 billion in funding for libraries between the years of 1997 and 2018, both in the U.S. and globally. Announcing the opening of the Gates Library Foundation in 1997, Bill Gates commented: "Since I was a kid, libraries have played an important role in my life. In the past couple of years I have had the opportunity to visit many

libraries and see firsthand how people are using personal computers and the Internet to do anything from *look for a job to research a term paper*. Witnessing the empowerment this technology has given people underscores my belief that computers can really make a difference in the lives of others" (Bill and Melinda Gates Foundation, 1997, emphasis added).

Library systems in urban centers have embraced the productivity lens in communicating what it is that investments in internet access do for people in their cities. For example, examination of public-facing documents show that the productive and safe use of the Internet are themes central to the messaging around funding for computer assistants at the Chicago public library system (Chicago Public Library Foundation, n.d.). The Chicago Public Library Foundation raises funds through private donors for special programs at the city's libraries. Along with youth programs focused on computer skills, the Foundation is responsible for funding the hiring of computer assistants at each of the city's library branches, called "CyberNavigators." With the assistance of the tutors, library patrons are said to "…create resumes and fill out online job applications. They set up personal email accounts, learn how to protect themselves online, and find resources such as educational programs and health information" (Chicago Public Library Foundation, n.d.) The Foundation's website lists sponsors including private foundations as well as the companies Google and Comcast. Under the CyberNavigator page, the Foundation reports how many sessions and hours were served by these assistants and that "nearly 1,000 patrons found jobs" in a recent year (ibid).

Researching Productive Uses of the Internet

The idea of equal internet access as productive and beneficial to individuals and the nation, rather than as human right, full stop, is a powerful one. The idea is that people should

have access to the internet because it makes them better equipped for employment. People would be better served through access to digital systems of governance and health. People will learn digital skills and to avoid digital security and privacy risks in order to facilitate their participation in these spheres of economy and governance. Libraries became the emblematic public point of access to support these outcomes. Through the library, internet access of a productive, secure, private, and educational nature could be extended to the masses, notably populations of special needs, including the unhoused, the elderly, immigrants, and families with children.

All of these arguments find support in interest among social scientists studying social inequality in the digital age. The policy discourse on what uses of public computers are productive for individuals and society finds it analogy in social science research on the digital divide. As Zillien and Hargittai (2009) write: "[T]he presumption that the Internet facilitates access to education, job opportunities, better health, and political participation is a central requirement to determining whether the digital divide should be of concern to scholars of social stratification" (279).

One question that has arisen in digital inequality research is whether socioeconomic status drives the kinds of activities people pursue using the internet, and whether one's choice of what to on the internet stands to benefit their broader well-being along certain dimensions. Researchers hypothesized that "Internet users of higher social status systematically use and benefit from Internet applications, while those of lower status use the Internet in less effective and less profitable ways" (Zillien & Hargittai, 2009).

In order to study the question, researchers establish categories of online activities and assign different value or meaning to them in terms of their likely effect on a user's well-being. Expressive and instrumental uses of the internet are one division. In this division, greater value

tends to be assigned to activities like checking the news and searching for information on health, travel, and product prices over activities like chatting online (Kraut et al., 1998; Petrič, 2006; A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009). Indeed, people with higher socioeconomic status — by income, education, and other measures — tend to use the internet more often than those of less socioeconomic status for these informational purposes. People of lower status are found likely to spend time chatting online (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009).

Both the study of productive Internet uses and the instrumentalism in governmental discourses underscore important efforts to understand and mitigate digital exclusion. We learn from research that people who are already disadvantaged — by income or education, for example — are less likely to use the Internet in ways likely to promote certain life outcomes. The implication is that merely providing a computer or Internet connection does not guarantee gains in digital inclusion according to how a person benefits or not in key areas of well-being (DiMaggio et al., 2004a). Similarly, public and private inclusion efforts have been focused on the stakes for employment and job skills. From that focus, we gain computer stations and assistants at libraries and nonprofits dedicated to resume building and job emails (Chicago Public Library Foundation, n.d.; Servon & Nelson, 2001).

Research on productive uses of the internet contributes to our understanding of digital inequality and to the allocation of resources for underprivileged communities. Even as we recognize the value of understanding the link between internet activities and broader life benefits, however, it is worth interrogating the productivity lens. First, the assignment of social uses of the internet to the category of unproductive uses may be short-sighted. Expressive uses of the internet may have their own benefits for an individual's status. Social grooming (Tufekci,

2008) and social browsing (Lampe, Ellison, & Steinfield, 2006) are activities tied to social network sites as well as with activities like chatting with friends, instant messaging, looking up information on friends and strangers, developing on a personal web page, and, "going online just for fun." In a study of college students, Tufekci (2008) finds a relation between these "expressive" internet uses and higher rates of (self-reported) social capital. Interestingly, the study did not establish a similar link between non-social, instrumental internet uses and social capital. Similarly,

Second, and more of interest to the study in Chapter 4, we know that people using public computers do not always (or mostly) use these public resources in ways deemed productive, either by scholars or bureaucrats. In his study of children's use of public library computers, (Sandvig, 2003) found that, opposed to the instrumental purposes the computers were said to advance, children primarily used the computers to play games. For this chapter, the finding is significant and raises questions that few existing studies have addressed. My ethnographic observations in north side Chicago indicate that adults, as well, spend a good deal of time on public computers engaged in activities of leisure, entertainment, and socializing.

Whether or not we pay attention to these activities and how we choose to interpret them is a matter of significance both for policy and scholarship. For example, will policymakers support funding increases for public computer centers in low-income areas if limited time on these computers is likely to be spent on games, instant messaging, and posting on Facebook, in addition to online courses and jobs searches? Similarly, how might scholarship on digital inequality address the significant proportion of internet activity — by the privileged and underprivileged alike — that is undertaken without productive outcomes in mind? What is the meaning and significance of playing, socializing, and merely passing time for people whose lives

stand to benefit most from gains in status resulting from productive Internet uses? And what frameworks and theories are available to aid in this interpretation? I address these questions in Chapter 4 by joining by participants as they use public computers at two neighborhood sites.

Networking for Survival over Social Media

The focus of both Chapter 3 and 4 is on the social, institutional, community, and political contexts of access inequality for people in poverty in north side Chicago. Chapter 5 turns to explore how my participants sought to grow their networks of online ties who could offer them financial and emotional support that was often lacking in the immediate community. Understanding why my participants would reach out to online ties in addition to local ties for support requires returning to the research traditions of urban sociology and social network studies. To make that research context clear, I review here relevant studies of urban poverty, particularly those that address the question of how the poor survive through receiving and exchanging resources with their social ties. With the rise of social media, digital scholars have used concepts of social capital and network bridging and bonding to understand people's activities on social media platforms, such as building long lists of online connections over Facebook. In this section, I illustrate the dovetailing of urban sociology and social media studies and illustrate the gaps that remain in the agenda to understand how the urban poor survive and support one another with the aid of social media.

Networks for Survival and Mobility

The degree to which members of the urban lower class are able to survive and improve their conditions is in part a factor of their ability to leverage resources within their network of

ties. A tradition of ethnographic scholarship examines how the poor build, maintain, rely on, and lose ties of support (Desmond, 2012; Domínguez & Watkins, 2003; Stack, 1975; Venkatesh, 2006). A separate but related thread of research addresses the role of daily, face-to-face interaction in the formation of social order within communities of urban poor (E. Anderson, 1999, 2013; Liebow, 1967; Whyte, 1943).

A view of social networks as pools of resources emerges out of a tradition of sociological theory. Writing against the reduction of class analysis to economics, Bourdieu (1986) theorizes wealth as but one form of capital at work in differentiating social position. One builds and maintains their position additionally through their store of personal connections. "Social capital" is defined as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (248). Social capital does not flow merely from larger social networks: research has developed and debated a number of explanations for how different resources emerge from networks and ties of various characteristics. An influential notion has been the distinction between "bridging" and "bonding" ties, related to the concept of "weak" and "strong" ties, or types of social connections that diversify or solidify one's network, respectively (M. S. Granovetter, 1973). Ties also differ to the degree that they offer resources to cope or "get by" and resources to "get ahead" or improve one's socioeconomic position (Briggs, 1998).

The particular significance of social capital for people in poverty emerges out of their conditions. The socioeconomic segregation of American cities strips away opportunities for those living in poor neighborhoods to establish relationships with people outside of their socioeconomic position (Briggs, 1998). Wilson (2012) found that rather than remain in neighborhoods where they might provide resources for those who remained poor, upwardly

mobile African Americans moved up and out of the urban center, contributing to the social isolation of those left behind. The "natural leadership" of inner-city black communities tends to drain to the suburbs (E. Anderson, 1990).

While opportunities for economic advancement are central to seminal research on status and network composition (M. S. Granovetter, 1973), for the urban poor, often the most pressing matter is one of meeting basic needs. Stack's (1975) All Our Kin is the primary reference for subsequent research and theorizing on the phenomenon of exchange networks among urban poor. Stack observes the role of favors – both material and in services – in the relationships among extended black families in "the Flats," an unnamed Midwestern town south of Chicago. Help from kin and near-kin stood in for the ability to afford childcare, qualify for a loan, or rent an apartment. Survival in the Flats meant balancing a search for favors with the act of providing; disequilibrium was the source of much strain on relationships. The exchange of resources was generative, not merely reflective, of social networks among the families Stack observed. Exchange relationships entail reciprocity, and by entering into them, an "individual personally mobilizes others as participants in [their] social network" (43).

Dominguez and Watkins (2003) explore the social networks of low-income African-American and Latin-American mothers using Brigg's (1998) division of social capital into "social support" and "social leverage." Social support is associated with strong ties and small, homogenous networks. Family, neighbors, and intimate friends help individuals "get by" or cope with the instrumental and emotional needs of everyday life. Solidarity and trust emerge more readily among dense network of close ties (Lin, Ensel, and Vaughn 1981; Portes 1995) and provide a general resource, along with specific opportunities such as job connections (Newman 1999; Waters 1994), that promotes individual advancement. Beyond the support from close ties

to cope with everyday life, individuals seek to "get ahead" through ties that provide social leverage.

Theorizing on the strategies of social support among the urban poor, Desmond (2012) entreats urban sociologists to consider the often-fleeting relationships formed among "virtual strangers." Typically, kin relations are the fodder for discussion (Stack 1975). Absent the crutch of familial relation, relationships among strangers push forward with "a kind of accelerated and simulated intimacy" (1322). Then, "[w]ith the tie locked in place, resources were exchanged—including housing, food stamps, money, childcare, information, and emotional comfort—making survival possible and sometimes enjoyable" (1322).

Social Order and Urban Interaction

The study of support networks among the urban poor stands astride a body of scholarship which addresses the interactional basis of strains and ties in poor urban communities. The research emerges from a view of urban life in America as unsettling and disorganized, held together by an undisclosed, emergent order woven among strangers (Wirth, 1938). Social interaction in its everyday forms became the fodder for the Chicago School research in the form of "symbolic interactionism" (Fine, 1995). Symbolic interactionism is the study of how collective meaning arises out from everyday interactions in physical context. with face-to-face interaction as the "fundamental form" of human association (Blumer, 1969). The interactionist tradition stands at odds with functionalist perspectives, which privilege social structure over its negotiation and interpretation among individuals in action (Colomy & Brown, 1995).

The study of "street life" among communities of urban poor reflects the interactionist emphasis on the social order that arises out of daily interactions tied to physical spaces. In a

study of an Italian community in north Boston, Whyte (1981 [1943]) hones on the everyday exchanges among members of the "gang." The coherence, leadership, and moral codes of the gang could be inferred from how they handled one another in personal engagements, who initiated actions, and even where members sat or stood in relation to on another. Standards of interaction differ for members based on their position in the gang, and the persistence of these standards offer relief. However, life in the last century required "a high degree of flexibility of action," and the inexperience of certain gang members with other social and geographic contexts set them up for failure when overall local conditions change (Whyte, 1943, p. 263).

Addressing the conditions of inner-city African Americans, Liebow (1967) similarly attributes the strains and ties of community to face-to-face interactions. A particular form of support among black men are "pseudo-kin" relationships they form with friends, which push forward through an "exchange of money, goods, services, and emotional support" (113). These relationships emerge by dint of proximity, out of situations in which "individuals confront one another day by day and face to face" (113).

Patterned interactions in urban space do not merely serve to support group coherence. Anderson (1999) writes of a "code of the street" by which black men seek to maintain a reputation for both toughness and decency through daily interactions with those they know, with police, and with strangers in public. The ability to negotiate daily interactions "minimum risk and maximum mutual respect" is the basis of the kind of wisdom that emerges on the street, "a world full of uncertainty and danger" (E. Anderson, 1990, p. 253). The effort to appear tough leads to a reciprocity of intimidation, with the knowledge that "physical transgressions will be met in kind" (E. Anderson, 1999, p. 317).

As the technological basis of communication shifts, urban ethnographers have sought to adjust to capture the online flows of street life. Lane (2016) observes as the relationships and reputations of black teens in Harlem form and reform through public and digital interactions with one another. The architecture of public space and of digital space contribute differently to how teens communicate and perceive themselves and one another. A threat made in public space, when posted online, allows for a significantly expanded audience (Patton et al., 2016). A Facebook or Twitter post which "calls out" another teen is searchable, sharable and subject to visibility by any number of "invisible" audiences, of which the subject of the post is likely unaware (d. boyd, 2008; Lane, 2016b).

The way that mediated communication shifts the terms of participation in street life for middle-aged and older adults is yet to examined. Considering the case of people experiencing homelessness, we should ask whether the typical ways that people attempt to find housing and other resources shift with the aid of the internet. In a prominent contribution to studies of homelessness, Desmond (2012) describes how people facing eviction often find through "virtual strangers" rather than family or friends (1322) a place to stay when they are evicted from their homes. With the affordances of SNSs for maintaining a larger set of social ties and learning of available resources within one's social network, we might ask if people in desperate need of a place to stay or rent money are turning to SNSs to connect to those resources.

Understanding how an economically marginalized group might navigate SNSs for the purposes of finding resources not available in their offline networks entails a consideration of the risks and complexities of online interaction on SNSs. Here, it is important to highlight the shift in the public communication environment brought on by the internet and social media. Ito (2008) and boyd (2011a) refer to "networked publics" to describe the way that the SNS environment

confounds the typical boundaries and trajectories of communication in a face-to-face or broadcast media environment. Unlike in face-to-face communication, expressions and interactions over social media persist over time through digital storage and they can be copied and shared in original form to new audiences. While SNSs thus expand the capacities to access and interact with a larger range of geographically diverse ties, then, participation on SNSs requires a set of skills to be able to manage communications meant for one audience but not another (Marwick & Boyd, 2014; Vitak, 2012). I explore the effects of these newly required sensitivities in networked publics for the particular population of unstably housed, middle-aged adults in Chapter 5.

Two questions thus emerge for the study of people living in poverty in the age of SNSs. The study of how members of urban marginalized communities navigate networked publics to find social support through *physically proximate* others is one question for future research. Considering our knowledge of the difficulties that come from seeking support from proximate and known ties of similar status (Desmond, 2012; Small, 2017; Stack, 1975), an additional line of research should address the opportunities presented by social media to connect and request aid from *online acquaintances and strangers*. Communication scholars can contribute to the efforts of urban sociologists to understand the nature of urban interaction and social networks with research that crosses online and offline contexts (Lane, 2016b). Drawing on this emerging area of overlap between urban sociology and digital studies, in Chapter 5, I examine the challenges that my participants face as they attempt to present themselves as deserving of aid on social media, while avoiding the risks of engaging with thousands of strangers on social media in the hopes of making next month's rent.

Looking Ahead: Community Research into Digital Urban Inequality

The question of how a new technology would impact longstanding trends in social and economic inequality in the U.S. motivated the first studies of the digital divide over, two decades ago. The landscape of digital technology itself continues to change, with mobile internet and social media changing how the internet is perceived and used, as well as enabling new means of surveillance and control (Seeta Pena Gangadharan, 2014; Gilman & Green, 2018). Researchers have emphasized new ways of conceiving of digital inequality, including shifting the context of study from aggregated individuals to cities and communities (V. S. Katz & Hampton, 2016). In subsequent chapters, I illustrate through ethnography the role of a particular urban place and community on the experience of the network society for a particular group of unstably housed adults. In doing so, I aim to show to digital inequality research can continue to expand to address the everyday processes of inequality even as we continue to better identify its broad structures.

Chapter 2

Methods: Ethnography of Homelessness in the Digital Age

This dissertation is an ethnography of urban poverty in an era of digital technologies. In this chapter, I discuss the methods by which I studied the role of digital technologies in the lives of my participants: a group of unstably housed, middle-aged adults living in poverty in north-side Chicago. I begin by describing my methods of offline/online data collection, including issues of informed consent and participant anonymity, before turning to characterize my participants and field sites and how I analyzed my data, as well as my positionality as a researcher in the field. In the Appendix, I argue the contribution of my particular methodological approach to studies of urban poverty in the digital age and describe some further lessons about developing rapport and sustaining field relationships I learned over the course of my research in Chicago.

Ethnography for the Digital Age

Ethnography is a way of gathering observations about social life and a way of making sense of those observations through writing. The ethnographer through participant observation spends time with people in the course of their daily lives, observing and asking questions over a period of months or years in order to better understand "the routine ways in which people make sense of the world in everyday life" (Hammersley & Atkinson, 2007, p. 2). By focusing on how people make sense of the world, ethnography entails a constructivist, rather than positivist, lens to researching social life (L. H. Lofland, 1973). The ethnographer is steeped in their own cultural and political context and thus, in writing about other people's lives, engages in meaning-making alongside their participants. The constructivist ethnographer provides a subjective account of the

social life of a given community, rather than an objective reality existing independently of interpretive frameworks of the researcher (Geertz, 1973). While ultimately subjective, ethnographic accounts are developed in necessary conversation existing theories and findings and according to methodological conventions, such as the grounded theory method I describe below. Through scholarly rigor, ethnographers provide interpretations that can be compared to other accounts in the same domain and in other domains of social life, producing theories that better account for social life overall (Hammersley & Atkinson, 2007). I adopt this constructivist perspective in this dissertation, providing one reading of some aspects of social life for a group of people whose lives are in many ways unique from mine.

This dissertation involves studying the social lives of unstably housed adults as they are carried out online and in the physical setting of a north side Chicago neighborhood. At its inception, digital ethnography developed as an online research method to study how people interacted at a distance through internet forums and virtual "worlds" such as Second Life (Boellstorff, 2008; Rheingold, 1993). More recently, ethnographers of the internet approach online spaces and interactions as extensions of offline life, rather than as worlds apart (Hine, 2015).

I describe my research method in this dissertation as "offline/online ethnography." This means that, as an extension and point of comparison to my fieldwork conducted in person in the Waterside neighborhood of north side Chicago, I observe what the people I spend time with in Waterside do and say over social media and instant message. In this regard, I adopt Burrell's (2009) formulation of a field site as a network. This means I follow my participants as their concerns and relationships develop outside the physical boundaries of Waterside and Chicago and into online networks of communication and action. Additionally, I follow in line with Lane's

(2016b, 2019) argument that, by observing the social lives of our participants as they flow from offline contexts to social media and back, we can shore up our ethnographic accounts to more accurately understand and represent our participants' concerns. Engaging in participant observation offline and online in the lives of a vulnerable population such as people experiencing homelessness involves grappling with new and longstanding issues around the ethics of such research and its feasibility. I address some of these issues here and use the Appendix to spell out my approach to these issues in more detail.

Offline/Online Participant Observation

I began conducting participant observation in the north side neighborhood of Chicago I call Waterside in January 2016. I ended my regular field visits in September 2019. Over this time, I recorded 230 field note entries, each representing a day's worth of field work. Using a paper and pen and the digital recorder on my phone, I collected field notes and interviews with participants on average twice a week. My field visits in Waterside typically lasted 2-3 hours, though I was often drawn into more frequent visits per week and to different locations around Chicago based on events in participants' lives and opportunities to expand my knowledge around my research topics. During the time of the research, I was living in a neighborhood a few miles north of Waterside, from which I could access Waterside in a few minutes by bike or train.

In line with my research protocol approved by the university IRB, I explained the nature of my study and gained ongoing verbal consent from my participants to take notes and record interviews throughout the study. I did not offer payment for participation in the study, aside from a set of semi-structured interviews I conducted with several of my key participants at the end of the study, for which I offered $20 for each of two, 45-minutes interviews. On occasion, people at

the nonprofit or in the park asked me for a dollar or two. As I describe in Chapter 4, these kinds of requests for small monetary or non-monetary gifts, like a cigarette or bus pass, were common among the people who lived in poverty in Waterside and were not only directed at people who were perceived to be outsiders of higher income. I learned to handle these requests on a case-by-case basis. As I describe in the methodological reflection, I began my fieldwork by offering people who were asking for money on the street a few dollars for an interview. As I spent time at the nonprofit and at the park where unhoused people gathered, I decided against handing out money to people who I did not already know well. I did not want to motivate participation in my research based on people's immediate needs for cash. As I began to develop my research relationships, I felt more comfortable helping out when I could, in addition to volunteer work I did for a few nonprofits in the neighborhood. In addition to a few loans to help my key participants with moving costs or a bus pass, I often helped people in their non-monetary needs, such as moving their possessions between storage centers, processing applications for government assistance, and taking the Freeman's sons for excursions to museums downtown.

At different points in the study, I became aware that many, though not all, of my participants were active on Facebook. I "friended" my participants on Facebook (or accepted their friend requests) and began to observe and interact with them on the platform at different times over the research period, though most online connections were established between six months and a year into fieldwork. I broached the subject of this form of data collection by saying something similar to: "You mentioned you use Facebook. I would love to learn more about how you use social media, as part of my research. How would you feel about me adding you as a Facebook friend and using what I see for my study?" I communicated that I would keep my participants anonymous and would safely store any data I collected, and answered any of their

questions. Few of my participants asked me follow-up questions. Many had already sent a friend request to me on Facebook, seeing that other participants had done the same. Only one of my key participants did not want to add me as a friend on Facebook. This made sense, as Leticia, whose attitudes toward privacy and social media I discuss in Chapter 5, maintained no friends on her Facebook account other than one family member. However, Leticia did allow me to observe her using Facebook at the nonprofit agency.

After friending my participants on social media, I began checking in on their Facebook activities. Typing the names of my participants in the search box of Facebook and clicking through to see what they had posted or commented became part of my weekly or daily fieldwork practice (see Lane, 2018 on social media as part of daily "rounds" of the neighborhood). I wrote field memos about notable interactions and placed these notes alongside screenshots as a means of reference, storing all my notes in password protected folders on my computer. Data points included posts, photos, comments, and “likes” and other reactions, as well as informational material, such as profile elements and friends lists. I also used Facebook’s Messenger platform for communicating by instant message with my participants. Because my participants often cycled through phones and phone numbers (Marler 2019), I was in many cases able to maintain a stream of instant messages more reliably over Facebook.

The anonymity of my participants was a concern in conducting observations on social media. To a greater degree than offline fieldwork, I was worried that the identity of my participants would be revealed through the potential visibility of our connections and interactions over Facebook. I first attempted to establish a Facebook account for research purposes with no association to my personal account. However, even when using a new email account to register my Facebook account (though, admittedly, I did so on my personal laptop and using university

wi-fi), Facebook quickly made the connection between personal and research accounts. After opening the research account, the first friend suggestions from the platform were fellow graduate students at my institutions and personal friends from out of state.

Despite my concerns, none of my participants expressed any worry over friending me and thus risking being "outed" as my anonymous research participants through visible associations over Facebook. I came to see that the act of connecting through our personal accounts on Facebook served a form of reciprocity (Urbanik & Roks, 2020). My participants seemed to enjoy seeing what I was up to over Facebook and, though I only added a post to my Facebook timeline a few times a year, Vicki, Abigail, Eric, or Briana would often mention to me in person what they had seen on my timeline. Though I began to appreciate the reciprocity of connecting over personal accounts, in order to reduce the chance of my participants being outed over Facebook, I prevented anyone, including my participants, from posting to my timeline without my approval (less my participants out themselves in a post on my timeline). I also removed the ability for other user to see my friends list. Because my participants could still comment on content that I approved to appear on my timeline, such as birthday wishes from friends and family, when my participants commented on such posts, I clicked an option to hide their comments shortly after I learned of them, following up with my participants over private message to react or respond to their comment.

Interviews: Informal, Semi-Structured, and Media Go-Alongs

I conducted interviews in various forms with my participants to supplement what I learned from observing as my participants went about their lives. Informal interviews were most common and amounted to me pausing a conversation or occasion that was unfolding to ask if I

could I could write something down or record. Though informal interviews were often spontaneous, I asked for permission in every situation before I began recording and made sure that my phone was in view during the conversation.

Semi-structured interviews were typically planned in advance and involved me having a more specific idea of what I wanted to discuss, such as people's attitudes toward "government phones" (Chapter 3) or going online at the library (Chapter 4). For semi-structured interviews, I arrived with a set of questions to guide the conversation. I incorporated what I had observed on my participants' social media feeds as prompts and, as did Lane (2019), printed off social media posts I found particularly significant to go over them with my participants in person.

I also conducted interviews with participants around screens as they scrolled their social media feeds. I draw here on the "media go-along" interview method described by Jørgensen (2016) and the "walkthrough" method of studying digital applications (Light, Burgess, & Duguay, 2018). Eric and I would regularly look at his phone screen together as he scrolled his Facebook feed or phone contacts, as would Briana and I. Vicki, Abigail, and Leticia, as well as Denise, whom I refer to in Chapter 5, allowed me to sit with them and observe and ask questions as they scrolled their Facebook feeds on computers at People First and the Waterside library. These interviews allowed me to see how my participants navigated the Facebook platform and what their feeds looked like from within their own accounts. In the way, I could triangulate what I observed as my participants scrolled their own feeds with what they merely told me about their online activities and what I could observe through my personal Facebook account.

Participants

The focus of this project is on the experiences of middle-aged adults across gender and racial identities who have experienced homelessness. I draw on the experiences of several key participants in addition to a larger set of interactions and observations with several dozens of people living in poverty in Waterside. My key participants are all low-income adults of middle age identifying as men and women and as white, black, Asian, and Latinx. My participants have all experienced homelessness in some form, and most were homeless at some point during the period of study. In addition to what I learned from these key participants, with whom I maintained close communication with over several years, I also draw on interactions and observations I had with many dozens of other unstably housed people I met and spent time within Waterside. I also conducted interviews with social workers of the nonprofit where I based my fieldwork.

Housing Situation

Access to a stable form of shelter is a basic human need. Lacking stable shelter at one time or another during my research, my key participants and others I learned from faced a severe form of deprivation for which there is no technological solution (Buré, 2006; Humphry, 2014). Entering this research in 2016, I was interested in how people without stable housing kept up with the demands of the network society and whether they found ways to short-circuit some of the traditional processes of inequality.

I refer to my participants as "unstably housed" rather than "homeless" to account for a variety of situations where people lack access to stable shelter beyond "sleeping rough" on the street and elsewhere outside in public places (Chamberlain & MacKenzie, 1992). Several of my key participants – including Eric and Paul and the Freemans – did sleep outside on park benches

and in parks for the majority of the period of study. Other key participants like Vicki and Abigail, and later the Freemans, were living week-to-week in shelters at the start of the study but eventually secured public assistance to move into one-room apartments in Waterside, or, for the Freemans, an old single-family house on the southside. The exception was Leticia, who had been in supportive housing for several years before I met her. Nonetheless, even Leticia, relying on government assistance for housing like each of my other informants, lived with the fear that she might lose her assistance and be back out on the street.

Demographics

My key participants are middle-aged adults, between 45 and 65. I became interested in this age group as one overlooked in many of the studies of age and digital technology. Young people are the focus of many studies of social media use (e.g., Hargittai & Hinnant, 2008; Marwick & boyd, 2014) as well as are older adults or seniors (e.g., Quan-Haase, Martin, and Schreurs 2016; Brewer, Morris, and Piper 2016). Middle-aged adults are unique in regard to their generational experience with digital technology and the resources they are likely access in the U.S. welfare system. Like older adults, adults in their middle age in the late 2010s are likely to lack the comfortability with social media and smartphones that many younger adults developed growing up in the 2000s (though not all, see Hargittai, 2010). Unlike those over 65, middle-aged adults, and particularly those who are single, without children in the home, and who are not disabled, lack many of the avenues for public assistance that people older than 65 have by dint of senior status (Peck, 2001). I discuss the role of middle age on my participants' efforts to use technology and develop relationships of support throughout the following chapters.

My key participants include people who identify as women and men and as black, white, Asian and Latinx. Gender and race shape my participants' lives in ways that are apparent as they seek to maintain access to the internet and develop relationships of support. Though studies show women and men tend to have similar levels of digital skills and motivation to participate online (Hargittai & Shafer, 2006; Robinson et al., 2015), women experience inordinate amounts of harassment that works to discourage their visibility in online spaces (Sobieraj, 2018). Women are similarly harassed in ways men are not in public and shared urban spaces (Duneier, 1999). As I discussed in the review of literature on smartphones and poverty above, African Americans and, to a lesser extent, Latinx people, in the U.S. tend to lag in internet access at home but adopt social media and smartphones at equal or higher rates as whites. Poor people of color in the U.S. also face disproportional levels of digital surveillance by law enforcement as well as targeting by commercial firms such as those offering high-risk loans (Eubanks, 2018; Seeta Peña Gangadharan, 2012). I discuss the role of gender in Chapters 4 and 5 on public internet access and networking over social media, and the role of race in shaping perceptions of mobile phone users in Chapter 3.

Key Participants

Vicki is in her late 60s, a white woman born in a southern state who lived in six other states before arriving in Chicago. Vicki is short, with long bleach-blonde hair, and typical wears a sun visor and sunglasses as she goes about her daily errands around Waterside. Vicki has seven children from former relationships with two men. She avoids contact with these men while keeping up with her children — who live around the country, but none in Chicago — to the extent she can over Facebook. She moved to Chicago in 2016 from out of state. Unemployed and

without savings or personal connections in Chicago, Vicki checked into interim housing at a nonprofit women's organization in Waterside. I met Vicki around this time, at People First and continued to spend time with and interview her throughout the study period. After waiting about six months, Vicki was approved for a studio unit in an affordable housing building for women in Waterside. Vicki uses Facebook daily, accessing the site from the People First computers and later, from a laptop at her studio.

Leticia is in her mid-50s, a black woman who has lived in Chicago her whole life. Leticia is stout and soft-spoken and wears her hair in a wrap. Leticia grew up in a mostly black west side neighborhood and did well in her first year of college. She dropped out due to difficulty maintaining attention to class and homework. She had trouble focusing on reading "unless it was really interesting." After this, she was involved in an altercation, an incident for which she claimed self-defense. Leticia spent a year in jail. Upon release, she was without work or a home and stayed at various shelters around the city. Leticia was eventually selected for an apartment in a women's affordable housing building in Waterside. I met Leticia at People First in the spring of 2017. Leticia has a Facebook account that she checks only on occasion, typically from a computer at the Waterside library.

Eric is in his early 60s, a white man who has lived in Chicago his whole life. Thin and grizzled, Eric wears several layers of jackets year-round, has a consistent five o'clock shadow, and wears a ball cap most days. Eric has been homeless and unemployed for many years. He receives a $700/month disability check, for which he is eligible due to chronic back pain. Over his years being homeless, Eric developed a leadership role in the north-side homeless community. I met Eric through Vicki in 2016, who pointed Eric out to me on her Facebook page, one day. Eric is known among many as the "mayor of tent city," for his role in organizing an

encampment for him and other homeless to sleep in during winter months under a bridge near the Waterside park. Eric introduced me to many others sleeping in the park. After meeting him in 2016, I continued to interview Eric and spend time with him throughout the research period. Eric remained homeless, sleeping in a tent or at a friend's house, throughout this time. Eric uses Facebook daily, which he accesses primarily from his smartphone.

Briana and Ronnie Freeman and their two sons are a black family and Chicago natives. Brianna turned 50 over the period of research and Ronnie turned 55, while their sons are 14 and 18. Brianna and Ronnie have been married for almost a decade. They lost their apartment in Waterside in 2016 when they fell behind on rent. Brianna was working part-time work while Ronnie, who had recently been released from a two-year jail sentence, was having trouble finding work and taking care of the kids during his wife's work shifts. I met the Freemans in the Waterside park in the spring of 2018, during a weekly food drop provided by a south-side philanthropist. The family remained street homeless until the winter of 2018, sleeping in tents the park. During the winter of 2018, they rented hotel rooms or slept at the homes of friends. In the early spring of 2019, they moved into a home on the south side, having been selected for the location and subsidized rent after almost three years on a Section 8 wait list. Ronnie and Briana are both regular Facebook users, accessing the site mainly through their smartphones.

Paul is in his mid-50s, a white man born in Chicago who has lived here most of his life. He is tall, thin, with glasses and the tendency to wear a fedora-style hat. Paul asked if he was the "control case" in my study. Indeed, Paul stands apart from my participants for his level of education and job experience in IT, with a Master of Science degree and several jobs in the field. Paul became homeless after he was laid off as part of a larger downsizing at the company where he worked. I met Paul at the start of 2018, a year after his firing. He was sleeping in the

Waterside men's hostel and selling street papers while looking for work. He frequently relied on alcohol during this time, drinking most days, and is a heavy smoker. My observations and interviews with Paul spanned 2018. He became street homeless in September of 2018, after the men's hotel was sold. Paul is a former Facebook user, with an account sitting idle since 2011. He is more active on LinkedIn. He also ran a GoFundMe campaign to raise money for him to afford rent, in the winter of 2017/2018.

Abigail turned 50 over the course of research. A woman of Korean descent, Abigail lived in Chicago her whole life. She is short and soft-spoken, with long, black hair. Coming from a middle-class family, Abigail attended a year of college, but dropped out due to physical and mental conditions. She suffers from back pain and was diagnosed with bipolar disorder, for which she takes medication. I met Abigail in the spring of 2018 in the Waterside park, at a pop-up church service hosted each week by a church located in the suburbs. Over the course of research, Abigail was unstably housed though not street homeless, lived in interim housing at the women's shelter as well as at two of the low-rent hotels in the neighborhood. Abigail uses Facebook most days, accessing the site primarily from a computer at Waterside library.

Field Sites

The Waterside Neighborhood

"You in the right place in Waterside. They got resources up here. Not like the South." - Field notes, comments of low-income visitor to People First, March 3, 2018.

Waterside is a mixed-income neighborhood on the north side of Chicago, near Lake Michigan, with access to the north-south Red Line "El train." The neighborhood spans just under a square mile and surrounded by generally wealthier neighborhoods to the north, south, and west.

Waterside is host to a relatively large number of affordable housing options as well as nonprofit agencies. This has resulted in a larger number of people living and arriving in the neighborhood with a need of various forms of public and private assistance to survive. With access to both the lakeshore and the main north-south "El" train line, and with cultural offerings including several theaters and clubs, Waterside is also a draw for young professionals and wealthier urban residents.

According to the 2017 census survey, the majority of neighborhood residents are White (~55%), followed in percentages by Black (~20%), Hispanic (~15%) and Asian (~10%) residents, according to racial/ethnic identification. A third of the neighborhood population reports making less than $25,000 a year. Waterside residents are on the whole 15% older than the city average.

With its relative wealth of resources for low-income residents and with its income diversity, Waterside does not exhibit the levels of "concentrated disadvantage" (K. N. Hampton, 2010; Sampson, 2012) of Chicago neighborhoods on the south and west sides, which provide more distilled examples of the effects of systemic racism and classism in city planning and economic development (Lugalia-Hollon & Cooper, 2018), as well settings for examining the role of new media technologies for African Americans whose lives are shaped by this degree of neighborhood disadvantage (Stuart, 2020b). Rather, Waterside is case by which to examine how people in poverty navigate access to a relative wealth of community resources, such as multiple sites of public computer access, while seeking also to extend their search for support to online networks extending beyond the neighborhood.

My fieldwork took place primarily in the central, business district area of Waterside where the majority of affordable housing and resources for low-income and vulnerable residents

are located. Places where I spent time observing my participants use the internet on computers and smartphones – the People First agency, the Waterside library, the Waterside park, a Starbucks cafe, and café section of a department store – are all located within a square-mile radius. The People First agency provided me a point of entry into the community of low-income, unstably housed residents of Waterside. From there I expanded my fieldwork into the broader neighborhood, following people and routines more than sticking to fixed locations. I provide an overview of the People First agency before moving on to other sites in the broader neighborhood. I describe the learning process of expanding my field site and developing rapport across sites in line with iterations of fieldwork in the Appendix.

The People First Agency

The People First agency was founded in the 1990s to support re-entry into the workforce for the chronically homeless and unemployed. The agency offices are located in a large building at a major intersection in Waterside, surrounded by a number of other nonprofit services as well as businesses targeting low-income residents. There is a small staff consisting of a director, two social workers and a rotating staff of interns, as well an office assistant. The office "cafe" is a small, carpeted, multi-purpose space — waiting room, lunchroom, computer lab, event space. The cafe is open to agency program participants as well as visitors without a formal association to the agency. One accesses the cafe by entering the building, taking the stairs to the People First office, and signing in with one's name and purpose for arrival.

Among those who saw participated in an agency job program in 2017, the majority were Black (70%, compared with 20% White and 5% Hispanic), male (80%), and middle-aged (45-54). Among program participants, 60% reported being homeless, with 40% living in subsidized

housing or renting. Day-to-day observations suggests these statistics overestimate the number of Black men relative to other races and women visiting the office for the broader range of services. There were more women, both White and Black, for example, visiting the agency to see a social worker, eat lunch, and use the computers than program statistics suggest. There is turnover in the people who spend time at the agency but also a significant presence of regulars, who chat around the lunch table and keep tabs on each other's lives.

The agency incorporated desktop computer access into its services in the late 1990s. The "computer station" is a row of six computers on a long, narrow desk along one wall of the agency lounge. The computers in use throughout my research were PCs, refurbished and running on free software. When they are all working, there are six terminals available. Anyone who knows about them and signs in at the door is able to use the computers.

Data Analysis

I analyzed my field notes and interviews through the method of grounded theory. Grounded theory involves entering the field with a knowledge of relevant theory and findings related a research topic, but rather than strictly testing established theories, to allow for concepts to arise from iterative rounds of observation and analysis (Charmaz, 2006). Initially, I did not ask my participants about technology, but prompted them generally on their lives and stories, particularly their experiences with homelessness. Hearing references to digital technology, such as "government phones" and Facebook accounts, I began to consider what themes were developing in my field notes. I focused on two areas of inquiry. The first is the role of mobile phones in alleviating or reproducing the disadvantage that low-income and minority communities experience in communicating by voice and text and accessing the Internet (Marler,

2019). The second is the role that social network sites such as Facebook might have in shaping how members of disadvantaged urban communities connect with each other for emotional and material support during periods of homelessness. I adjusted my subsequent observations and interviews to better explore the related dynamics. For example, I paid closer attention and asked follow-up questions when people mentioned problems with their phone plan. I sought out for interviews people who seemed to be active on Facebook, as well as those who had left the site.

Grounded theory involves a thematic coding one's field notes and interviews and refining these codes into higher level concepts with further observation (Charmaz, 2006; Glaser & Strauss, 1967). For example, in Chapter 3, I noted themes in my notes of "government phones" alongside tags such as "breakdown," "theft/loss," and "mobile Internet," before understanding over time how these themes related to the broader phenomenon of "phone accumulation." For Chapter 4, Vicki and others taught me to see the choice of location for public computer access as a depending on social, institutional, and technological factors across two sites in the neighborhoods, concepts which I could use to understand and mark my previous and subsequent interviews. For my analysis in Chapter 5, the analysis of lower-level codes such as "stranger online," "friend count," and "name changing" led to development of the higher-level concepts "connective ambition" and "creative caution." Developing my codes in reference to my observations as well as theories and findings from existing research allows me to suggest novel interpretations of the role of digital inequality for unstably housed urban residents of a large U.S. city.

Positionality

The axiom of the reflexive ethnographer is that "we are a part of the social worlds we study" (Hammersley & Atkinson, 2007, p. 14; see also Davies, 2012). As a white man from a largely white, middle-class suburb, who turned 30 over the period of research, my identity and background shaped the research process in ways that I could recognize and in ways I am likely to have overlooked. I describe myself and my impression of the influence of my identity and background (which is what I mean by "positionality") on my fieldwork here. In the Appendix, I describe the ways that I learned — through the patience and goodwill of my participants — to learn better ways of being in the field and collecting ethnographic data as an outsider.

The way that I was viewed as an outside by members of the community made itself apparent on several occasions. On one occasion, I was mistaken for a police officer. I was outside of an SRO near People First, standing over my bicycle and fiddling with my phone, wearing largely gray and blue and a pair of dark sunglasses. There was a line of parked cars near me. A woman — black and middle-aged — began yelling in my direction. She approached as I took headphones out of my ears and smiled. "Oh, I thought you were giving me a ticket!" she said, pointing to her car.

The assumption in this case that I was a police or ticketing officer rather than just another person biking through Waterside suggests that my appearance and manner marked me as, at least, someone other than a low-income community member of the neighborhood and, perhaps additionally, as a representative of an institution such as law enforcement or the state. I began to worry that people would censor themselves around me. As I describe in the Appendix, I made an effort to distinguish myself from the staff of social service agencies and volunteers from schools and churches, such as by eating portions of donated food at the People First agency, when there was extra available, rather than going out to eat or bringing my own lunch.

Perhaps as a result of my identity and background, I found that certain groups and personality types were more and less willing to engage with me. Striking up extended conversations with men and, in particular, black men, required a longer process of building rapport than with women, and white women in particular. I think of the man, white and thin, with a baseball cap and quiet voice whom I introduced myself to at People First in my first week of fieldwork. He promptly told me he was not interested in talking to me for my research. On future occasions, we nodded to each other, but never spoke at length. I think of a younger black man, Maurice, with clean Nikes and headphones always in his ears, who was typically around at the Waterside park during food drops and church services. He responded politely but generally rebuffed my attempts to get to know him. These men had their own reasons – perhaps a distaste for my style of self-presentation or a distrust of those they perceived as representatives of academic or state institutions (Duneier, 1999; Liebow, 1967) – to keep their space from me and I respected their distance.

Race also appeared to play a role in my ability to develop relationships with potential participants. At the beginning of my research, I found I had more easily developed research relationships with several white participants, including Vicki and Eric, who seemed eager to relate their stories to an aspiring professor who was willing to listen. I had more difficulty developing rapport with some of the black men I was meeting in the People First office and around the neighborhood. I was aware that my account of social life for unstably housed adults in Waterside was being biased toward the view of a particular racial group. I describe in the Appendix how I switched up my approach to engage with black members of the scene, who have reasonable warrant to suspect both in-person and digital observation by a white researcher (Seeta Peña Gangadharan, 2012). Though I developed relationships with participants of varying racial

and ethnic backgrounds over the course of research, a researcher of a different identity would likely have experienced a different relationship, at first if not over time, to the community of people I got to know in Waterside.

This study remains the account of a white, middle-class, male researcher interpreting the lives of a group of middle-aged adults with diverse racial and ethnic backgrounds and similarly diverse experiences of poverty. The strength of the study is in gathering accounts from people outside of those typically studied through qualitative research on digital inequality. Over time, I heard the accounts of women and men, black and white and Asian and Hispanic, of various ages, and in a range of housing and employment situations. People with lives very different than my own began to feel comfortable enough with me to approach me around the neighborhood, updating me on the latest episodes involving their housing status, friendships, phones, and Facebook accounts.

Chapter 3

"You Gotta Have Two Phones Out There": Aid and Adaptation in Phones Access for the Urban Poor

God said it, you know? You share blessings so you make room for new ones. If you don't give nothin' up, how you gonna get a new one in? Am I right? -Richie

It was a few months into my fieldwork when I first heard the words put together: "government phone." It was early in 2017 and the air was chilly, blowing in from the lake. A few blocks west of the lake, pedestrians in Waterside were pulling their jackets and scarves close around their necks. People stepped into the currency exchange, huddled in a vestibule beside the bus stop, and turned their backs to the wind while smoking cigarettes. Three floors up, overlooking the street, a man enters a nonprofit agency looking for favors.

"Anyone got a phone?" the man says. He is wearing a stocking cap and winter jacket, he is bent over slightly, and there is a limp to his walk. Speckles of white and gray compliment a short beard against the man's caramel skin. His voice is raspy, as if the result of years of smoking.

Around the room, only a few people are present. Richie, Harold, and Carston are all black men in their 60s. While I do not recognize the man who has entered the lounge, these men have attended the agency for various programs over the years, and appear to know him. Richie is the first to answer. "You ain't got a phone?" Richie smiles as he answers, as if ready to give the man a hard time. The man shakes his head, adding, "And when I found out I lost it, I was mad as hell!"

Overhearing from a comfy chair by the far wall, Harold is the next to speak up. “Who’s got the government phone?” As Harold speaks, his hands are busy with his own phone, a “smart” model designed with internet use in mind. I mark the words “government phone” with a question mark beside them in my notebook. The man turns to Richie. “You got the government phone?” “I got the one you gave me,” Richie replies, “But I left it at home.” “Well…” the man starts. Richie pauses, as if making a tough decision. A moment later, Richie reaches into his pocket, pulling out a iPhone in a gold-colored case. “Take it, but give it right back when you’re done.”

The man thanks Richie and takes Richie’s phone. Richie eyes the man as he dials in the number. The calls connects and the man asks for another favor, this time from whoever is on the line. There is a chance for a ride across town, and the man takes it. He arranges a meeting a short walk away, and hangs up, handing the phone back to Richie.

As soon as the man had arrived at People First, he left. Within a few minutes, he had secured a needed ride and had done so through a piece of personal communication technology that was not his own. All the while, I was left wondering. In an age where everyone is expected to have a cell phone, where does a person turn when they are without one? Why did Richie have the one phone in his pocket and another one at home? And what do the men refer to, when they refer to a “government phone”?

Researching the Government Phone

Over the last decade, over 10 million Americans each year have had their cell phone bills subsidized by a program of the U.S. government called Lifeline (Universal Service Administration Company [USAC], 2016). The Lifeline program was established in 1985 to expand among the American public the “opportunities and security that phone service brings,

including being able to connect to jobs, family and emergency services" (Federal Communications Commission [FCC], 2016). Critics question the ongoing justification for phone aid to the poor as 95% of Americans now report owning a mobile phone (Pew Research Center, 2017). Researchers have concluded that many who benefit from the Lifeline program already have an active phone line, or would otherwise be able to afford phone service (Ackerberg, DeRemer, Riordan, Rosston, & Wimmer, 2014; Crandall & Waverman, 2000; Garbacz & Thompson, 2003). Further, critics in the political sphere point to evidence that millions of beneficiaries have obtained, against program rules, multiple subsidies across different government-supported providers (Government Accountability Office [GAO], 2017; Miller, 2015). Supporters reaffirm the ongoing need for the subsidies, however, as the Lifeline program expands to incorporate mobile broadband (Wheeler, 2016).

The debate over the Lifeline program raises important questions at the intersection of technology, poverty, and telecommunications policy. Two decades into the 21st century, how secure is access to a phone for Americans in poverty? Why do millions of low-income Americans continue to seek out one or more subsidies for phone service when research suggests the market serves nearly everyone? What shifts are likely as smartphones replace cell phones as the standard option, even among the poorest?

What is missing from policy debates is a view from the ground. In everyday life in low-income communicites, some people hold onto multiple phones, while others still ask, "Anyone got a phone?" Meanwhile, "government phones" are the stuff of everyday talk. In this chapter, I parse these ethnographic leads with analysis of field notes and interviews that followed over the course of a year. Understanding the significance of "phone accumulation" helps to guide policy

while pushing forward our understanding of mobile communication in low-income commuinities.

This chapter is organized as follows. First, I describe the Lifeline program in the context of other country's efforts to promote phone access. I then examine the scholarly and popular debate on phone access and the Lifeline program in the US. I lay out the conclusions of quantitative policy studies and the images provided by media reports, before complicating these conclusions and images with the findings of research on digital inequality and on technology access in developing countries. I introduce "accumulation" as one among other adaptations low-income phone users pursue to maintain access. Then I describe my particular approach to researching these questions, within the scope of the broader ethnographic project. Then I present my findings. I describe how accumulation functions in the everyday lives of low-income adults in Chicago. I discuss the significance and limitations of these findings before concluding with implications for policy.

Subsidizing Mobile Phones in the US: Lifeline in Global Context

As the most widely dispersed personal communication technology in history (Castells et al., 2007), there has been significant interest in the potential of mobile phones for upending barriers to economic and social advancement for disadvantaged populations, particularly in the developing world (Aker, 2010; Aker & Mbiti, 2010; Jensen, 2007; Krishna, Boren, & Balas, 2009). The lack of ample research in the U.S. context is striking, considering that minorities and low-income communities in the US tend to rely on mobile phones for Internet access (Napoli & Obar, 2014; A. Smith, 2015; Tsetsi & Rains, 2017b). Linking the capacities of mobile phones to the challenges particular to life in poverty, poor communities might be theorized to benefit the

most from personal, mobile communication devices (Rice & Katz, 2003). For example, Gonzales (2014) finds that mobile phones aid urban poor in communicating threats to health and safety, which are more frequent in disadvantaged communities.

Governments have understood their obligation to expand telephone access within their populations in different ways, leading to divergent policy approaches (Crandall & Waverman, 2000; Garbacz & Thompson, 2005). Household subsidies for mobile phone service emerged in the US in the mid-2000s out of a program established in 1985 to support landline phone service for low-income subscribers (Hauge, Jamison, & Jewell, 2008). The US, UK, and Australia appear unique in that they subsidize service costs at the household level (Eardley, Bruce, & Goggin, 2009). By contrast, in China and India, the focus of government efforts remains on expanding geographic coverage through infrastructure development and access to phone and Internet services at public institutions (Jayakar & Liu, 2014).

In the US, the Lifeline program provides household subsidies for landline or wireless service. In 2016, 11.5 million Americans had their wireless service subsidized through the program, with 1.2 million opting for subsidized landline service in the same year (USAC, 2016). Those with an income at or below 135% of federal poverty guidelines are eligible for the program, as well as those benefitting from certain government aid programs. Most beneficiaries in 2016 were approved through their participation in the Supplemental Nutritional Assistant Program (SNAP) or Medicaid (USAC, 2016). Beneficiaries tend to be middle-aged: approximately half in 2015 were between 40 and 65 years of age, 35% were under 40, and the remaining were over 65 (USAC, 2016).

Since 2016, the Federal Communications Commission (FCC) has held companies to rising minimum standards for the service plans they offer to subsidized subscribers. As of

December 2016, monthly plans are required to provide at least 500 minutes of voice and 500 Mb of mobile broadband at a speed of 3G or higher. By December of 2018, the minimums double for both voice and data provision. There are no standards for provision of text service (FCC, 2016). One perk that companies have offered in order to remain competitive is to include a mobile phone at no cost for new subsidized subscribers. Companies have turned to hiring vendors to staff pop-up booths on sidewalks in low-income neighborhoods, advertising "free phones" to passersby (Richtel, 2009). Applicants in these cases walk away with a new phone registered with a subsidized service plan if their eligibility was confirmed by the company's verification system.

Evidence emerged in the 2010s that service providers had been registering significant numbers of ineligible or duplicate subscribers (Government Accountability Office [GAO], 2017). Reforms to the program began in 2014 to bring the responsibility for verification under the purview of the FCC (GAO, 2017). Two years after reforms began, the FCC recorded 2.5 million fewer subsidized subscribers (USAC, 2016).

Views from Above and Below: Comparing Perspectives on Phone Policy and Practices

Typical evaluations and images of the Lifeline program and its beneficiaries provide an incomplete or misinformed picture of the conditions of phone access for poor Americans. The findings of the chapter provide an alternative view, bolstered by other research on phone access in poor communities. I lay out in this section the disconnect between the view "from above"—that is, in certain quantitative policy research and media coverage—and the view "from below"—offered by a group of qualitative studies of phone access for people in poverty in the US and abroad.

Research on Phone Access in the US: From Divides to Inequality

Studies that evaluate the state of phone access in the US often rely on methods that fall short of capturing the complications of access for poor people in everyday life. For example, national surveys pose the matter of phone access as one of owning a mobile phone or not, with no reference to the quality or dependability of device or service (A. Gonzales, 2016). For example, a recent survey reports that 95% of Americans own a mobile phone, with 75% owning a smartphone (Pew Research Center, 2017). Similarly, policy studies tend to reduce the concept of access to whether or not a household is subscribed to a phone line. Research in this vein tends to conclude that household subsidies through the Lifeline program are an inefficient means to grow subscribership (e.g. Burton, Macher, & Mayo, 2007; Eriksson, Kaserman, & Mayo, 1998; Hauge et al., 2008; Ward & Woroch, 2010). An exception is Ackerberg et al. (2014), who attribute a modest growth in phone penetration to Lifeline subsidies. A related conclusion of econometric analyses is that price is not a significant predictor of household phone penetration, suggesting that lowering the monthly cost of service for poor households is the wrong target of universal service policy (Crandall & Waverman, 2000; Garbacz & Thompson, 2005; Gideon & Gabel, 2011; Kaserman, Mayo, & Flynn, 1990; Rosston & Wimmer, 2000).

The means by which quantitative studies evaluate “access” to a phone involves a similar reduction of the concept as in early research on the “digital divide” in Internet access. Surveys ask in a binary fashion whether individuals “have” or “don’t have” access to the relevant technology (National Telecommunications and Information Administration, 1995). In contrast, researchers of digital "inequality" ask where people fall on a spectrum (Lenhart & Horrigan, 2003) or continuum (M. L. Mueller & Schement, 1996) of quality and stability of access (DiMaggio & Hargittai, 2001; Hargittai, 2002).

The importance of the inequality concept is evident in research on phone access for members of poor communities. Conducting interviews in New York City, Gonzales (2014) identifies a number of barriers that prevent poor residents from enjoying quality and dependable access to a mobile phone. Devices that are generally low-end or second-hand, including models made available by Lifeline providers, frequently malfunction. Theft and loss of devices is common, further disrupting access. Additionally, bills go unpaid due to financial constraints, leading to regular periods of disconnection from phone service. Amidst regular cycles of disconnection, the poor experience "dependable instability" in their access to a mobile phone, a degree of inequality that measures are unlikely to capture. Extending these findings to Internet connectivity, Gonzales (2016) argues that, for the economically marginalized, the difficulty of maintaining technology access over time is a significant and underexamined facet of digital inequality. People experiencing homelessness appear to be particularly subject to such instability (Humphry, 2014). Findings in the U.S. context reflect the broader conclusions of researchers examining mobile phone use in developing countries, where theft, loss, and unreliable devices are commonplace in poor communities (Jenna Burrell, 2010; de Souza e Silva et al., 2011; Gitau, Marsden, & Donner, 2010; Sey, 2011; Ureta, 2008).

Adapting to Constraints: Media STereotypes and Poverty Research

Stereotyping Subsidized Phone Users

Media coverage and political debate on phone subsidies in the US have produced images of low-income phone users that contrast with the descriptions in poverty research of the struggles that poor people face. People who benefit from the Lifeline program have been framed in popular culture as entitled and criminal. For example, devices subsidized by the Lifeline program

became associated with President Barak Obama as “Obama phones” after a video featuring the comments of an Obama supporter in 2012 spread rapidly online. “Keep Obama as president,” the woman, who is Black, says to the camera, adding, “He gave us a phone. He’s gonna do more.” The video spread on conservative news sites and blogs, perpetuating an image of the “lazy Black” among a largely White and conservative audience (McIlwain & Caliendo, 2014).

News reports in mainstream and alternative media alike furthered the negative stereotypes of subsidized phone users. In a segment on a popular conservative news outlet in 2013, a reporter recounts her successful effort to obtain several Lifeline-subsidized phones from vendors outside government aid offices in New York City, despite her ineligibility. The reporter illustrates by holding her three “Obama phones” up to the camera (“The Secret Behind,” 2013). The same year, a conservative political activist recorded an exchange between a subsidized phone vendor and an actor posing as an applicant (“Uncovered: ‘Obama Phones,’” 2013). The actor asked the vendor whether he could sell the phone to “get some money for heroin.” The vendor replied that he “did not judge” and continued to process the application. The report has been picked up by other media sources as evidence of the criminal intentions of those seeking subsidized phones (Martosko, 2013).

Adaptation as Concept

Political coverage of the Lifeline program in the US has framed the possession of subsidized phones by low-income adults as evidence of personal excess and criminality, particularly when these phones are possessed in multiples or when they are obtained with ease on city sidewalks. Research globally shows, however, that the poor maintain phone access through practices that may be foreign to the upper classes. Scholars have shown how, through such

practices, the poor adapt to meet their technological needs from the economic margins (Jenna Burrell, 2010; de Souza e Silva et al., 2011; Donner, 2007; Sey, 2011; Ureta, 2008). The notion that ordinary people will adapt mass-produced technologies to fit local needs has roots in organizational research of the previous century (Orlikowski, 1992; Rice & Rogers, 1980). One concept in such research is that users may "reinvent" a technology through creative uses (Rice & Rogers, 1980). Creative adaptation in the face of poverty is not unique to technology needs. Sociologists have contributed accounts of how low-income communities survive despite severe resource constraints. For example, poor communities tend to form extensive sharing networks and operate outside the legal economy (Edin & Lein, 1997; Ehrenreich, 2001; Stack, 1975; Venkatesh, 2006). In the following sections, I consider what is known about forms of adaptation as they relate to mobile phones. I then describe what gaps remain in our understanding of an understudied form of adaptation, which I call "accumulation."

Adapting by Private Sharing

Sociologists have long recognized sharing practices in poor communities as a two-sided coin of benefit and risk. Stack (1975) describes the extent to which black families in a Midwestern town south of Chicago shared resources and swapped favors in order to meet their basic daily needs, from childcare to rent money to car rides. She observes that the practice of loaning and trading resources puts a strain on the social ties between givers and takers. Similarly, researchers have described phone sharing as a practice that both enables and disadvantages poor communities. Gonzales (2014) observes sharing as one means by which low-income phone users in the US overcome phone disconnection as their devices run out of minutes, malfunction, or are lost or stolen. Investigating the causes of disconnection from phone service among Americans,

Gideon (2012) notes the salience of phone sharing. Respondents in Gideon's study refer to bills made unaffordable by calls made by friends and extended family on their devices. Investigating phonelessness in the landline era, Mueller and Schement (1996) quote a low-income interviewee of inner-city Camden, New Jersey. The respondent was asked by a social service agency to provide the phone number of a neighbor to fill in the blank on an aid application. "How do they know you get along with your neighbors?" the interviewee wondered aloud to the researchers. "Maybe in the suburbs they can do that" (1996, p. 284).

Evidence of the two-sided nature of phone sharing is prevalent in studies of developing countries. Observing phone sharing to be typical of the Ugandan experience of phone use, Burrell (2010) notes that the contacts and text messages stored on a mobile phone make privacy a concern unlike in the sharing of impersonal resources, such as food, money, motorcycles, radios, or television. Ureta (2008) observes that in Santiago, Brazil, poor households sharing a single mobile phone tend to leave the device at home for common use, undercutting the capacities that derive from the mobile phone as a portable device**.**

Adapting by Public Sharing and Creative Use

In addition to private sharing, low-income phone users turn to public alternatives and technological creativity to secure access. Investigating phone access in the landline era, Mueller and Schement (1996) find that those without phone service "rely heavily on pay telephones in the street and office telephones at their place of work" (1996, p. 284). The researchers find that the lack of a household phone imposed a "rather demanding regimen" on the phoneless. Those needing to make a call had "to plan carefully" to make and receive calls on borrowed and public phones (1996, p. 288). Reliance on public or shared phones was problematic: Interviewees

reported that pay phones were often occupied or out of order, while the unemployed lacked the option of a work telephone to rely on.

Low-income phones users also adapt technological affordances to meet their needs. For example, one cost-saving measure noted in studies in the developing world is the practice of "beeping." By beeping, a caller terminates a call before the receiver answers, leaving a "missed call," which does not cost the caller (Donner, 2007). Donner (2007) lays out the significance of beeping for phone users on limited budgets, noting that the practice was encouraged by the emergence of call logs and prepay phone plans.

Adapting by Accumulation

An additional category of adaptation proposed by this chapter is phone "accumulation," which refers to the possession of multiple phones by an individual. It is apparent from research and reports that the phenomenon of multiple phone ownership is widespread globally. Multiple phone ownership is noted in studies of poor communities both in the US and abroad (A. Gonzales, 2014; Horst & Miller, 2006). The International Telecommunications Union (ITU, 2016) estimates that the average mobile subscriber possesses 1.45 SIM cards, a finding that complicates efforts to estimate phone penetration by counting active service lines.

Though the practice is widely observed, the function and meaning of phone accumulation remain contested. In cultural studies, the accumulation of material possessions more broadly is linked to the formation of identity in capitalist societies (Noble, 2004). More functionally, accumulation of material resources may be a coping mechanism, such as when poor farmers purchase livestock to protect themselves against instability in the yields of their crops (Dercon, 2016). Competing interpretations of the accumulation of phones frame those who do so as

thrifty, criminal, or empathetic. Horst and Miller (2006) observe that Jamaicans often possess multiple phones, each linked to service plans with different companies. Such a phenomenon suggests a desire to take advantage of discounts or special offers across companies (also see ITU, 2016, p. 158). In critical media coverage of the Lifeline program, the practice of accumulating phones is interpreted as a signal of personal excess and, when it involves subsidized phones, as evidence of defrauding the government of public resources (e.g., Miller, 2015). Adding to the particular rhetoric on beneficiaries of the Lifeline program, there is much in popular culture, including hit TV shows such as "The Wire," that provides fodder for imagining that a second phone in the hands of an inner-city African American is likely a "burner phone," dedicated to illicit drug dealing (Saltzman, 2016). Alternatively, in scholarly studies such as Gonzales's (2014), the willingness of a low-income respondent to share an extra phone kept at home provides an example of how poor people support one another to overcome instability in their technology access.

This chapter takes as a starting point the latter interpretation by Gonzales (2014), which accords with the impetus more broadly observed among poor communities to find creative and cooperative means to maintain their access to advanced communication technologies (Jenna Burrell, 2010; de Souza e Silva et al., 2011; Donner, 2007; M. L. Mueller & Schement, 1996; Sey, 2011). Within the frame of such "maintenance strategies" (Gonzales, 2014), however, the context and function of phone accumulation remains largely unexplored. What is the nature and scope of accumulation in the context of daily life in poverty? How does the practice play out within the social dynamics of the poor? What difference does a cell phone or smartphone make in shaping the practice of accumulation? How do subsidized devices fit into these routines? In

this chapter, I consider these questions in the context of the daily experiences of subsidized phone users in the US.

Accumulation and Government Phones in the Chicago Context

I began this chapter at the People First agency, with an interaction around phones I observed on a particular winter day. Over the course of my fieldwork between 2016 and 2019, I observed similar interactions on a weekly basis. That is to say, the struggle to maintain acces to a phone -- and to phone service and mobile data -- figure centrally in the routines of everyday life among the low-income adults of Waterside. Phones are tools for critical daily communications, they are ways to pass moments of boredom, and they are the cause of regular annoyance and stress. Talk of "government phones" is a near-daily occurrence at the office. Subsidized phones are instrumental for participants to meet their communication needs, often as the sole phone in one's possession. Just as often, however, I observed that subsidized phones are kept as secondary devices to fill in during gaps in access. I observed three functions associated such phone accumulation, or the possession of multiple phones by an individual. First, extra phones are kept as backups with the expectation one will lose access to their primary device or line of service. Second, by possessing several phones with complementary capacities, the poor build up to the capacities of single, high-end phone and service plan. Third, additional phones are obtained in the interest of lending to others in need. These functions of "back-up," "build-up," and sharing are treated separately for analysis in this chapter; they often overlap in practice. I elaborate on each category below, drawing on particular cases to illustrate broader trends I observed in the field.

Accumulation as Back-up

One function of phone accumulation is to make available a second device in the case that one is lost, stolen, broken, or runs out of minutes. The clients of People First talk about possessing multiple phones in a way that reflects a general concern that what is owned today may be, suddenly and without warning, gone tomorrow. Mack is a Black man of middle age who, though currently unemployed and living out of his car, is pursuing certification to become a minister through a local church. He speaks at the lunch table where a number of clients sit, conversing over bowls of donated soup. I asked him about the phone in his hand, a bulky model with a strip of tape supporting the back cover. "I've got two phones," Mack clarifies, "and I keep 'em both boosted." He reaches to check his other phone, which is being charged from a spare outlet behind the nearby coffee maker. "You gotta stay on top of things, now—stay fully equipped," he adds. "You never know what might go down." One of the agency veterans, a long-time client named Raymond, gives similar advice to newcomers. "I try to keep two phones, if possible," he says to a man arriving at the office one day, seeking help in applying for subsidized housing. "That way, if I lose one, I still have my numbers on the other," Raymond adds.

Mack's advice speaks to a need to possess back-up hardware, and Raymond's to the prudence of having one's contacts backed up on a secondary device. For Darlene, an elderly client of the agency, a "government phone" is the alternative during months when her social security income does not stretch far enough to allow her to reload minutes onto her other, market-rate smartphone. Even when she has minutes on her smartphone, the presence of a second phone is comforting. The subsidized phone is "for emergencies," Darlene explains. The problem is, she tells me, the "battery went out" on the subsidized device a few months after she obtained it from a street-side vendor. Darlene has been unable since to find a compatible battery at the neighborhood shops.

In sum, keeping a second phone as a backup makes sense as a means to maintain phone access in the face of the instability of one's possessions (Gonzales, 2014). The practice is also directed toward particular goals, such as preserving phone contacts (Horst & Miller, 2006). Yet the low-quality of hardware provided with subsidized service plans limits the effectiveness of back-up as a strategy of preserving access through accumulation.

Accumulation as Build-up

Another function of possessing multiple phones is to make up for capacities missing on one device with those available on another. Through such build-up, low-income phone users approximate the capacities of a single, high-end phone and service plan by accumulating several devices that, on their own, lack one or more necessary features. I turn to the case of a client named Windsor to illustrate how build-up functions in the context of urban space for a person in search of employment and housing.

In his late twenties, Windsor is younger than the typical client of People First. A Black man, he is short and heavyset. I run into Windsor one morning at a Starbucks café near the agency. In his hand he holds a large touchscreen phone, tucked into a weather-beaten protective case. “Just soaking up some Wi-Fi,” he quips when I ask him what he is up to. “Check this out,” he tells me, turning the sizable screen toward me. The Internet browser displays a listing for a dishwashing job at a posh club downtown. Before long, our conversation shifts to Windsor’s passion. He cannot believe I have not heard of the DJ with whom he collaborates. He taps a few times into the phone, pulling up a music video for us to watch together.

During a lull in the conversation, Windsor reaches for a second phone resting on the table. This one is smaller, with a single crack across the screen. Windsor is surprised that I care

to take a look at it, his "government phone." The phone resembles other models I have seen provided with subsidized plans. Namely, they are "feature phones." Such models constrain Internet access to a limited number of built-in applications. These presmartphone models lack the range of features and ease of use that characterize brand-name devices running on Android and iOS operating systems (Donner, 2015). He retrieves the humbler model from me and types a number into it, referring to the screen of the larger device. A minute later, Windsor has the phone to his ear, inquiring about the details of the dishwashing job.

In this way, Windsor puts two mobile devices to work in his pursuit of menial employment and the career of which he dreams. Windsor's technological habits are both adaptive and demanding. In those urban spaces where free Wi-Fi is available, he is able to access the Internet through a smartphone with no voice or data service plan. When the need arises to make a call, Windsor relies on a model that provides him voice and text services at no cost, a benefit made available through subsidies of the Lifeline program.

Windsor is an outlier among others considered in this chapter due to his relative youth. Yet it is not rare to find older adults who similarly rely on a subsidized phone to fill in for the capacities lacking on another device. A client of the agency in his sixties, Raymond, is always on the lookout for side gigs to supplement his social security income. Raymond had become frustrated with the phone he received from a vendor signing up passersby for subsidized service plans on a street corner near the agency. Advertised as a "smartphone," the device nonetheless failed to connect to the Internet in order to download the Facebook app or sync his email address to an app on the device. He laughed when he saw that I, too, could not manage to set up his email account nor find the means to download any application not included on the phone.

Raymond's solution was to purchase his own smartphone, spending a week's earnings from his part-time job, and rely on the subsidized phone for calling and texting. He now waits until he has access to free public Wi-Fi to send photos to his grandchildren, listen to talk radio shows, and look up directions to run errands in town. The situation is much the same for Darlene, introduced before, who switches from her subsidized phone to her smartphone to show me photos of her new apartment, the first she has had in 2 years of living in various shelters.

By building up their capacities across several mobile devices, Windsor, Raymond, and Darlene approximate the capacities of a single, high-end smartphone with a sufficient service plan. Even with multiple devices in hand, however, the approximation often remains incomplete. A few months after running into Windsor at Starbucks, we crossed paths again on the sidewalk outside the agency. Seeing me scrolling through updates on my iPhone, he asked if I could look up a number for him. In his hand, he held his subsidized device, which had sustained several more cracks on its screen. Thanking me, he typed the number I had found of a nearby music store into his phone. I asked if he still had his other phone. Tapping his bag, he assured me he did. As Windsor walked away, I realized that, unlike the unlimited wireless data plan I enjoyed on my own device, Windsor's smartphone provided him Internet only when connected to public Wi-Fi. In this case, having access when it was needed required another person willing to share their more robust plan.

Accumulation for Sharing

In addition to the functions of backing up and building up their technological capacities, the clients of People First seek to possess subsidized phones with the intention of sharing these devices with family, friends, and those who come into physical proximity. Those who keep a

subsidized phone for the purpose of sharing it with others often kept another mobile phone, whether market-rate or subsidized, for personal use. In the following, I show how phone accumulation functions within the social dynamics of those living in poverty in the context of the disappearance of public alternatives to personal phone access.

Requests to borrow a phone are a common refrain overheard in the waiting room of the People First agency. One day at the office, Reggie shouts across the room to no one in particular, "Anyone got a phone I can use?" A heavyset Black man in his late fifties, Reggie pays weekly for a room in a dilapidated residence that houses men who, lacking the income or subsidies to afford monthly rent in a typical apartment building, are otherwise homeless. A group of Black men around the lunch table balk at the request. "Gitch yer own!" says one, causing the others to laugh. "I got my own," Reggie defends himself, "just ain't got minutes!" Reggie refills the minutes on his own phone when his budget, supported primarily by disability income, allows. Today he hopes to get in touch with his former wife to arrange the details of a party for his daughter's high-school graduation. A man at the table reluctantly hands over his own phone, commenting loudly that he's "got minutes." I confirm with the lender, a friend of Reggie named Robert, that his phone is a subsidized device.

When turning to one another to borrow a phone, not all clients are as fortunate as Reggie, who finds a nearby acquaintance with whom he has good rapport, or Windsor, who earlier found the same in me. Those without friendships at the office tend to be denied loans, whether it be a phone call, a dollar, or a cigarette. One day, a middle-aged Black man whom I did not recognize enters the office and, after looking around, approaches a regular client named Deon, also Black and middle-aged, at the computer station. The man asks Deon if he has a phone that he could use. "I don't normally let people use my phone," Deon responds, turning only slightly to

acknowledge the man. “I don’t have any minutes right now, anyway,” Deon adds. Indeed, when I asked clients of People First whether they typically loan their mobile phones, the most common reply was a definitive “no.” Vicki, a White, middle-aged woman who had recently secured a subsidized apartment, told me she used to lend out her phone. However, she found that this led to receiving bothersome calls from people attempting to reach the borrower of her phone. She has since taken to fibbing when people ask to use her phone, telling them she is out of minutes.

The alternatives to borrowing a private phone are few for poor people in the neighborhood of People First. The office phone made available to clients at People First is notorious for being occupied, out of order, and inconvenient to use. Pay phones are notably lacking in the age of the mobile phones (Van & Wong, 2007). So laments Harry, a White elderly client with Italian background: “I mean, you want to call someone, where do you find a phone? They used to be all over, telephones . . . Now everyone needs a phone [of their own].”

There are exceptions to the rule that one does not lend their phone to someone one does not know. An important exception I witnessed was when a lender kept a second, subsidized phone for the express purpose of making it available for others in need. Having found work as a janitor at the shelter where he previously stayed, Jessie, a Black man in his early sixties, spends time at the agency to eat lunch and “give guidance” to clients arriving from “off the street.” Jessie takes pride in providing support to those in a precarious position where he once found himself. He speaks with similar pride about the extra phone he possesses in addition to the Android smartphone on an unlimited plan he keeps holstered on his belt. He explains that he obtained a subsidized phone in the interest of others. “If somebody wanna use my phone, I let ’em use my government phone,” Jessie says, pulling a “flip” model out of his pocket.

In addition to friends and strangers, family members and romantic partners benefit from their contacts who possess a subsidized phone in addition to another device. For a period of a few months, Vicki had two subsidized phones on hand. Vicki complained of receiving frequent calls from unknown numbers on her primary subsidized device. The calls come primarily from acquaintances and in relation to job applications of her son, who prefers to borrow his mother's phone when visiting her in Chicago. Vicki is concerned about sharing her limited minutes but finds it difficult to refuse her son's appeals. Eventually, she handed over one of her subsidized phones to her son to continue his job searching.

Linda's case exemplifies how the possession of a subsidized phone in addition to another mobile phone can spread access among poor families as public access declines. Linda is White and in her mid-forties. She lives in a tent north of the city's downtown with her fiancé, a Black man who is also a client of the agency. Linda has a subsidized phone. She uses it to keep in contact with her daughters, who are staying with Linda's parents while she attempts to secure employment and housing. Linda finds that she spends the 500 minutes allotted on her subsidized plan within the first half of the month. As a result, she uses the office phone at People First whenever possible, to save minutes on her subsidized plan. However, on repeated occasions in which she spoke with me at the office, Linda had arrived to find the office phone occupied or out of service. Linda intends to keep her subsidized plan active even once she obtains her own, market-rate phone. In such a case, she will give the subsidized phone to her daughter. "I just want to know if she makes it home from school," she explains. Like Vicki, Linda is motivated to provide for her children. Responding to the deficiencies of public alternatives and the limitations of a single subsidized device for her family, she seeks out multiple phones to fulfill her role as a mother in keeping her child safe.

Stakes for Phone Research and Policy

The findings of the chapter have stakes for both telecommunications policy and scholarly research on mobile communication. A primary concern in research and popular criticism has been that aid for low-income phone users in the US has allowed poor people to accumulate phones in a way that contributes little to equality of access (Ackerberg et al., 2014; Garbacz & Thompson, 2003; GAO, 2017; Miller, 2015). In communication research, meanwhile, the phenomenon of phone accumulation has been underexplored, leaving room for ambiguity over a practice that is widespread (Gonzales, 2014; Horst & Miller, 2006; ITU, 2016).

The experiences of low-income Chicagoans suggest that, far from squandering public resources, the act of keeping a subsidized phone in addition to another mobile device contributes to the goals of the Lifeline program by securing and spreading phone access within an underprivileged community. Phone accumulation responds to the hurdles, such as frequent loss of devices and service, that low-income technology users face to maintain access. The practice builds on the strengths of poor communities, including the willingness to share resources with others in need. There are limitations to accumulation as a strategy of resource maintenance for the socially isolated among the urban poor. Those who practice it still struggle to meet the expectations of a society in which owning a smartphone has become the norm (Pew Research Center, 2017). A discussion of the findings serves to illuminate the advantages and limits of phone accumulation. I then describe the implications the findings have for telecommunications policy.

First, the practice of accumulating mobile phones is a result of the reasonable expectation of poor people that their personally owned technologies will be lost or stolen, or that they will break down. A second phone, or a second government phone, is in this sense the means by which

the poor back up their primary devices amidst the "dependable instability" (Gonzales, 2014) of one's possessions in the context of poverty. Yet in the case of the clients of People First, backups in the form of subsidized phones often mean inferior or refurbished models that leave their users disconnected soon after they gain access. Further, clients of People First consistently run up against the limited minutes that subsidized service plans provide for voice calls. This leads them to seek out additional phones to accumulate airtime.

Second, the broader context of technological change influences the practice of accumulation among poor Chicagoans. The subsidized phone that one obtains as a secondary device to a primary, personal phone serves in place of a now-endangered species of communication technology, the public pay phone. Reflecting on their findings at the time, Mueller and Schement (1996, p. 285) estimate pay phones to be "the most important part of the public telephone network to phoneless or marginal households." As pay phones have disappeared from public space (Van & Wong, 2007), the phoneless may be expected to rely more heavily on phones available at public and semipublic institutions, including social service agencies such as People First. However, the experiences of Linda and other People First clients indicate that these semipublic landline phones are generally overworked or unreliable.

Lacking sufficient and working public alternatives, the urban poor turn to the mobile phones of others. Yet the practice of lending out one's phone tends to place the stability of that lender's phone access at risk. In the landline era, sharing often meant racking up service charges that the poor could not afford (Gideon, 2012; Mueller & Schement, 1996). As this chapter confirms, in the mobile era, it is more likely that minutes are drained and hardware is misplaced, lost, or stolen (Gonzales, 2014). The chapter shows that, cognizant of this risk, low-income phone users engage in careful tactics to refuse sharing their devices, such as claiming to be "out

of minutes." They do so despite the "obligation to give" that is observed within communities of poor (Stack, 1975). By loaning out a subsidized device rather than another, primary phone they keep, lenders among the poor fulfill such an obligation while mitigating the risk to their own, critical resources. The possession of multiple phones did not, however, guarantee that phones would be shared. Participants in this chapter were still more likely to share an extra phone with a person they knew than with a stranger.

The findings of this chapter further show that the possession of a subsidized phone in addition to a device purchased on a personal budget serves in many cases to build up one's technological capacities to approximate those provided by a single, high-end phone and service plan. The practice of build-up responds to a lack of financial resources needed to secure the society standard. As with back-up, there are limits to build-up as a strategy to secure one's phone access in the context of poverty. Windsor's two phones—one with subsidized service and the other with Internet functionality but no service plan—fall short of providing him Internet access when away from public Wi-Fi hotspots. Darlene's "emergency" phone, a subsidized device, is inoperable due to a poorly functioning battery. This reflects Gonzales's (2014) concern about the ability of second-hand hardware to provide dependable access for low-income phone users.

Finally, it is worth addressing the popular perceptions of phone accumulation that link the practice to illicit activity. The argument of this chapter is not that illicit practices are not pursued with the assistance of subsidized phones among the economically desperate of Chicago (see Venkatesh, 2006, on the "underground economy"). Indeed, one participant informed me that she was aware she could sell her subsidized phone, with 6 months of remaining service, "for maybe 20 dollars." Whether this estimate is accurate or these practices widespread is beyond the scope of this chapter. Rather, the chapter emphasizes the great deal of activity involving subsidized

phones that contributes to the well-being of people in poverty and the stated goals of the Lifeline program. In particular, the chapter reframes a practice that is typically misunderstood or maligned—that of phone accumulation—as contributing to these same outcomes.

Policy Implications

The emergence of accumulation as a digital-age strategy to maintain phone access with the aid of federal subisidies implies a number of lessons for policies designed to improve access to advanced telecommunications services for Americans in poverty. The first relates to how access is measured as a target of universal service policies and programs. In line with the conclusions of other communication researchers (Gonzales, 2014), the findings suggest that phone access for low-income Americans should be evaluated by degrees of quality and stability. Agencies should assess the quality of services and dependability of access over time for phone users, in tandem with conventional measures such as econometric analyses of service penetration.

Second, companies that benefit from distributing Lifeline subsidies should be held to high standards for the devices they provide. The rising standards for minimum service put in place by the FCC for subsidized plans are important for ensuring that what is provided to subsidized phone users keeps pace with broader trends in mobile service. As the experiences of low-income Chicagoans make clear, however, the provision of talk time and mobile Internet are not keeping pace with contemporary demands and habits of phone use. Additionally, to date, there are no requirements related to the phones that are provided with subsidized service plans. Service providers have found it to be viable to provide phones along with subsidized plans, yet the experiences of low-income adults in Chicago show that these devices are often outdated,

refurbished, or unreliable. In fact, it was often due to the poor quality and limited minutes of subsidized phones that clients of People First lost connection and sought out additional subsidized devices, at odds with program rules specifying one subsidy per household.

Third, provisions for the likelihood that phones will be shared, lost, or stolen should be built in as optional features on subsidized devices. For example, a "guest" mode would make it possible to hand over a phone to a person in need without risking the exposure of personal information. The ability to remotely delete information on a device is a feature that would further protect the accounts and information of low-income phone users whose devices are subject to risk of loss and theft.

Fourth, the FCC should consider alternatives to combining home and mobile Internet plans into one subsidy provision. Considering the disproportionate reliance of poor and minority Americans on mobile phones for Internet access (A. Smith, 2015), the rising standards for subsidized mobile broadband service is encouraging (FCC, 2016). The inclusion of home Internet service as a subsidy option through the Lifeline program is a boon for disconnected households. In current form, however, beneficiaries are required to choose between subsidies for home and mobile Internet access. A more robust policy would invest separately in the benefits of home and mobile Internet access for low-income households.

Conclusion

As with the situation of the man who stepped into the People First office looking for help, the possession of multiple phones is an important means by which people in poverty secure quality and dependable phone access despite resource constraints and unstable conditions. Subsidized phones are central to routines of such phone accumulation. In addition to backing up

other devices and making it easier to share, accumulation allows low-income phone users to build up their capacities across devices to approximate the quality of phone access enjoyed by the upper classes. When in the interest of back-up, build-up, and sharing, the result of phone accumulation is to boost the overall number of Americans connected to phone service, both in number through sharing and in the security of that access over time. In each case, by accumulating phones, the poor in Chicago thus come closer to experiencing "the opportunities and security that phone service brings" (FCC, 2016).

Chapter 4

"You Can't Talk at the Library": Togetherness around Technology in a Low-Income Neighborhood

Go to a library, and then come here and you'll see. Analyze what's different there and different here. -Vicki

Within digital inequality research, studies of "usage gaps" seek to understand how different uses of the internet relate to life outcomes, including employment, health, and political participation, for more and less privileged socioeconomic groups (Hargittai & Hinnant, 2008b; A. J. van Deursen & van Dijk, 2014). Typically, scholars do not associate life-enhancing outcomes of internet use to uses related to leisure and socializing, such as watching music videos or chatting online. Nevertheless, several studies suggest that people of lower socioeconomic status tend to spend more time on entertainment and social activities online than on other activities connected to enhancing life outcomes (Hargittai & Hinnant, 2008b; Rice & Katz, 2003; Tsetsi & Rains, 2017b; A. J. van Deursen & van Dijk, 2014). It is worth examining why internet users with lower socioeconomic status tend to spend more time on these kinds of activities than on those typically considered to enhance status, if indeed this is the case. Additionally, there are no studies of usage gaps to the author's knowledge which explore the subject qualitatively, in the context of users' everyday lives.

In this chapter, I expand my study from smartphones to desktops to study the leisure and social uses of the internet with unstably housed adults going online via public computers in a low-income area of north side Chicago. I begin by addressing the literature to argue how research can expand around the topic of leisure uses of the internet for people experiencing

homelessness. I introduce the neighborhood and both sites of computer access in the methods section, along with my methods of data collection and analysis, before turning to the findings. Analyzing my field notes and interviews, I address public computers as avenues for private escape through online leisure activities and as avenues similarly for interpersonal bonding through conversation, dance, and song around the computer. I alternate visits to the nonprofit agency and the public library to illustrate the influence of institutional setting on each form of interaction. In the discussion and conclusion, I apply the findings more broadly to the study of leisure uses of the internet for disadvantaged internet users and suggest how to adapt local institutions to the complex ways that unstably housed adults value and use the internet in daily life.

Usage Gaps and Digital Inequality

The goal of digital inequality research is to understand how differences in internet access, skills, and uses correspond to broader socioeconomic inequalities (DiMaggio, Hargittai, Celeste, & Shafer, 2004b; J. A. G. M. Van Dijk, 2005). One line of research examines the life outcomes of different ways of using the internet. Drawing on the knowledge gap hypothesis (Donohue et al., 1975), the study of "usage gaps" asks whether people of higher social status are more likely than those of lower status to use the internet in ways that benefit them in particular areas, such as in education, finances, employment, health, and political participation (Hargittai & Hinnant, 2008b; A. J. van Deursen & van Dijk, 2014).

A number of studies largely confirm the usage gap hypothesis. These studies show that people with higher social status are more likely to use the internet in ways that connect with beneficial life outcomes (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009). People

who are better off in terms of education and income tend to use the internet to search for information, to aid in their careers, to save money on products and to participate in politics. Meanwhile, those with fewer markers of social status spend more time online chatting with friends and playing games (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009).

The usage gaps findings are significant. They suggest that people of lower social status will fail to garner the benefits of the internet not (or not only) because they lack sufficient internet access or digital skills. Rather, they will fall behind because they tend to use the internet in ways that do not benefit them, namely, for socializing and leisure rather than for developing economic opportunities or gather information that could benefit their finances, health, and political participation.

Yet there are limitations to the current approach to studying usage gaps. The current models may underestimate the benefits of going online for the purpose of leisure, entertainment, and social interaction. Assuming that people in positions of socioeconomic disadvantage indeed spend more time online pursuing the latter kinds of activities (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009), we should ask why they do so and whether social and leisurely uses of the internet serve them in some way not apparent from current approaches. In the following sections, I consider the literature which shows a connection between leisure and social activities and the well-being of people experiencing homelessness. I relate these findings to what we know about the connotations of leisure and social uses of the internet at community sites of public internet access. This is followed by a description of the current ethnographic study.

Leisure, Social Bonds, and Homelessness

Leisure is an essential human activity with the ability to strengthen social relationships, improve health, and develop community attachment (Coleman & Iso-Ahola, 1993). People perceive higher levels of social support when they regularly engage in leisure activities with others, reducing stress and anxiety. Leisure activities promote well-being by contributing to people's sense of self-determination, which builds on individual perceptions of freedom, competence, control, and intrinsic motivation (Coleman & Iso-Ahola, 1993). Social activities outside of work and school have been shown to be positive contributors to a sense of community (Francis, Giles-Corti, Wood, & Knuiman, 2012).

People experiencing homelessness stand to benefit from leisure as a means of social bonding and to allay stress and boredom. Boredom is commonly reported as a concern by people experiencing homelessness and is shown to have negative implications for health and well-being (Marshall et al., 2019; O'Neill, 2014). Moreover, homelessness involves a great deal of stress and interpersonal relationships are a key source of emotional and material support (Desmond, 2012; Hopper, 2014; Snow & Anderson, 1993). Though supportive relationships are crucial, the conditions that surround and feed into homelessness -- substance abuse, mental health problems, unemployment, and associated social stigma -- make developing and maintaining social bonds difficult (Padgett, Henwood, Abrams, & Drake, 2008). As family ties fray, relationships among people experiencing homelessness are substantial sources of empathy and low-level material support, though these relationships are volatile and often fleeting (Desmond, 2012). An additional challenge is to find physical sites for socializing. "Prime" urban locations such as parks, cafes, and bars are often policed for the presence of unwanted types, including homeless, who are relegated to "marginal spaces" such as cities' "skid rows" (Snow & Anderson, 1993).

There is less research on leisure in the context of homelessness, despite the connection between leisure, mental health, and social support. Klitzing (Klitzing, 2004) conducted an ethnographic study of women living in transitional housing and identified leisure activities as a coping mechanism for the heightened levels of stress among the women. Playing cards, watching TV, and listening to music were ways to cope with stress in their own right and they were context for social support when others joined in the activity. Leisure thus operated dually, providing an escape from the surrounding circumstances, including from others, as well as the lubricant for social interaction that was its own form of diversion and coping (Hodgetts & Stolte, 2016). In the case of social interaction, the women described in Klitzing's (Klitzing, 2004) study listed among their primary activities listening to each other talk while sitting around a boombox, listening to music.

The role of physical spaces in promoting leisurely interaction for people experiencing homelessness is also understudied. Social service organizations may play a large role. Indeed, an important exception to the trend of social and spatial marginalization for urban homeless are social service organizations and other community organizations serving vulnerable urban populations (Domínguez & Watkins, 2003). The women in Klitzing's (Klitzing, 2004) study were able to listen to music together while exchanging emotional support in part because they had a setting – the porch of a transitional home – in which to spend time together. Relationships with social workers are reported as key supportive bonds for homeless adults, not only for services but also emotionally (Padgett et al., 2008). The waiting rooms of social service organizations are settings in which people with similar needs for housing and income find one another and develop supportive bonds (Desmond, 2016). Differences across such organizations

are likely to shape opportunities for leisure and social interaction, though existing research is limited in comparing institutional settings.

ICT Access, Leisure, and Homelessness

Little work has addressed the role of information and communication technologies (ICTs) in the leisure activities of people experiencing homelessness. People experiencing homelessness use ICTs but do so under unique constraints for how and where they get online (Eyrich-Garg, 2011; Roberson & Nardi, 2010). Relative to people in higher income groups, people in poverty tend to lack internet access that is reliable and spans devices and locations (M. Anderson, 2015; A. Gonzales, 2016; Hassani, 2006), as well as the social support for using technology, a combination of factors shown to foster digital advantage (DiMaggio et al., 2004b). Smartphones are more often the only means of internet access for low-income individuals in the U.S., though access to mobile devices and services is unstable (Gonzales, 2014; Author, 2018), particularly for the homeless (Author, 2019).

Without reliable internet access at home or on smartphones, low-income urban residents including the homeless rely heavily on internet connections provided on public and shared computers at public libraries and social service organizations (Dailey et al., 2010; Horrigan, 2015; Servon & Nelson, 2001). Though recent research is lacking, earlier studies suggest that these community access sites differ in how they treat social and leisure activities on provided computers. Sandvig (2003) describes the "instrumental" lens through which public libraries in the U.S. treat computer access for low-income populations. Within this framework, internet computers are meant for individuals to pursue activities with educational or economic merit, such as doing homework or applying for jobs. Examining the discourse as it applies to efforts to

connect “the next billion users” of those outside the West without internet connections, Arora (2020) speaks of “the belief that a good digital life for the poor [will] be based on work and inherently utilitarian” (8). In both Arora’s findings in developing contexts, and in Sandvig’s (2003) study in California, people with limited access to the internet spent their time at public libraries and in internet cafes more often playing games, watching videos, and scrolling Facebook, activities not typically deemed productive by in the instrumental lens of the digital divide. Similarly, Klitzing’s (2004) notes that women experiencing homelessness used the computer available in their transitional home to play games as a way to pass the time.

Community institutions and their funding agencies that provide internet access to the poor shape the expectations for, if not outright determine, the ways that the internet is used, including for more and less utilitarian purposes. Not all institutions adhere to the instrumental lens. A survey in the early 2000s showed that many community technology centers (CTC) in the U.S. endorsed a user-driven approach. Servon and Nelson (2001) found that the majority of CTCs in their survey supported “unstructured” computer access for the populations they served. The study quotes the director of a technology-focused community center in Pittsburgh: “I think what we have to do is just make resources available to the community and the community will figure out what, when and how to use them. And they may not use them the way the mayor’s office or someone else thinks they should use them. But I think it needs to be open like that (204).”

Exploring Leisure and Social Uses of Public Computers for the Homeless

There are thus different approaches among local institutions and their sponsors as to whether work or leisure is the proper use of digital technology for the poor. Leisure may provide

mental health benefits by aiding homeless in coping with everyday stress as a means of escape and as a context for social support (Hodgetts & Stolte, 2016). While the conditions of homelessness make it difficult for social bonds to develop, leisure may ease the process. However, physical spaces for leisure are few for the homeless in urban areas, where presence in "prime" spaces of leisure is policed (Snow & Anderson, 1993). Social service organizations offer a different kind of space in which the presence of homeless is more often welcomed and where supportive relationships are likely to develop (Domínguez & Watkins, 2003), including through leisure (Klitzing, 2004). ICTs are a means of leisure in such settings, in addition to their instrumental role for educational and economic opportunities (Sandvig, 2003). Yet institutions differ in their approach to access, endorsing more and less instrumental and leisure uses of internet-connected computers. We know little about how low-income and homeless users themselves approach public internet computers, particularly when they largely rely on those computers for their internet access.

Studying public computer use in a low-income Chicago neighborhood

This chapter reports on participant observation and informal interviews which I conducted to examine the leisure and social uses of internet computers at two sites of public/semi-public access, including People First as well as the public library in Waterside. The current study draws on around 50 field note entries from observations lasting several hours each with unstably housed adults across the settings of a nonprofit and public library in Waterside, entries I tagged in my field notes as related to computer use. I also draw on a series of informal interviews conducted with my participants as they used computers at either site. In the following,

I describe the Waterside library and compare it to the People First agency in relation to the computer access provided at each site.

Computer Access at Waterside Public Library

The Waterside public library is a one-floor, brick building with two small wings, one for children and one for the general public, tucked into a mostly residential block a short walk from the main avenue in Waterside. The main room of the library is staffed by two front-desk attendants, two librarians, and a security guard. A computer tutor is available for around 20 hours a week. In addition, a social worker is available several days a week for open consultations with visitors to the library, reflecting the resources for low-income residents available in the broader neighborhood.

A range of races/ethnicities, ages, and income levels are represented each day in the library main room. At odds with overall neighborhood demographics, I observed more Black, Hispanic, and Asian visitors than White visitors on any given day. There were more middle-aged and older adults than younger adults. I could regularly make contact with several of my participants who are unstably housed by visiting the library in the afternoon hours. There was also the presence of people on any given afternoon whose MacBook Pros and dress suggested they were middle-class.

Unlike general admission to the library, computer access requires a library account, which itself requires a state ID. Most of my participants had library accounts, though I spoke with other unstably housed adults who said they did not use library computers because they were awaiting possession of a new ID or avoiding library fines. Ten desktop computers are arranged in two rows at the center of the main wing. Each computer is available for a maximum of two, one-

hour sessions each day. Despite its modest size, the Waterside library is in the top 20 percent of Chicago's libraries in terms of the number of computer sessions completed by computer users at each library branch in 2016, according to city data available online. The average number of sessions per day at Waterside library was 90, spread across individuals who could use one or two sessions per day.

Computer Access at People First

As I described in Chapter 2, the "People First" agency was founded in the 1990s to support re-entry into the workforce for chronically homeless and long-term unemployed. Similar to the adult wing of the library, the visitors to People First are generally middle-aged and older adults with a range of racial and ethnic backgrounds. However, there is a higher proportion of Black visitors to People First when compared to the relative racial balance at the library. This is reflected in agency statistics for the agency's employment program, which provides an estimate of who is likely to visit the office each day. The majority of participants in the employment program in 2017 were Black (70%, compared with 20% White and 5% Hispanic). There are also relatively fewer women at People First compared to the library, with 80% of participants in the employment program being men in 2017. A third difference is the class diversity at the agency relative to the library. Out of those participating in the employment program in 2017, 60% reported being homeless, with 40% living in subsidized housing or renting. Unlike the library, I saw little or no evidence over the course of fieldwork that people with middle-class incomes were visiting the People First agency to use the computers. Computer access is available to anyone signing in at the door at People First, but the resource is not advertised to the general public.

The agency incorporated desktop computer access into its services in the late 1990s. The agency has since lacked the resources to make the quality or security of the computers a priority. The agency counted 1,700 times that participants or visitors — including repeat visitors — signed in to use the computers in 2017. There is no staff at the agency dedicated to the computers and when a computer breaks or slows down — a relatively common occurrence — the computer is often out of order for weeks at a time. There are no software protocols to establish log-in accounts or sessions, meaning that users do not sign in for sessions and their data and browsing is not deleted after use.

Findings

Unstably housed adults in Waterside incorporate the internet into their leisure activities via public computers in ways that reflect both leisure as a private escape and leisure as context for social support (Coleman & Iso-Ahola, 1993; Klitzing, 2004). In these findings, I illustrate the limits of online leisure activities as private escape through the use of public computers. Then I show how leisure activities on public computers can function as context for social support at access sites where noisy interactions around computers are permitted. In this vein, I find that access institutions and their respective policies, resources, and norms shape outcomes around internet-involved leisure activities, focusing on a comparison of the People First nonprofit and nearby Waterside library. To argue these points, I begin by with an emphasis on the kinds of instrumental uses of technology that *were* common to my participants but are unlikely to be captured in studies of usage gaps.

Formal Employment and Informal Labor

The literature on usage gaps emphasizes internet access and digital literacy as avenues for opening up access to formal employment for the economically marginalized. In the case of my participants who were seeking formal employment in my study, however, it is not at all clear if and how owning computers and improving digital skills would substantially improve their chances of a job, for reasons I illustrate in this section. At the same time, my participants used public computers and their government phones – along with personal devices and service, when available – to do a good deal of informal labor of an instrumental nature, such as maintaining government assistance for themselves and their families and aiding their interpersonal networks to meet basic everyday needs, from rides around the city to childcare.

There was much talk among my participants, when I inquired about their internet experiences, about computer classes they had once taken or a website they had once opened to promote themselves. My participants were enthusiastic, at least in speaking with me, about improving their abilities with the internet. Yet, the majority of formal and less formal jobs that I observed my participants secure over the course of my research did not involve working with computers or the internet. In addition to the occasional full-time factory job, men I interviewed primarily found jobs as bouncers, security guards, movers, event staff, and landscapers. Women I interviewed worked as parking attendants, home-care providers, and cashiers, among other jobs. Perhaps a result of their age, being middle-aged and older, or due to lower educational attainment, as few of my participants completed college, my participants expressed little confidence in training themselves in computer and internet skills to the extent that would make them competitive for a modern-day office job.

Paul's story is perhaps the best testament to the futility many felt around the idea of obtaining digital skills in an attempt to compete for jobs requiring them was Paul. Referring to

his relative expertise in information technology in comparison to most people living on and off the street in Waterside (and indeed, in relation to the general population), Paul in our interviews referred to himself as the "control" case for my research. Paul has a master's degree in information technology and worked several jobs in the field in the 1990s and 2000s, including the IT department for a major Chicago newspaper from 1991 to 1999. Paul was laid off during a company downsizing. When I met him and in subsequent years, Paul was filling out applications for any job he could find related to IT, telling me once that he was filling out 60 applications a week, searching primarily on Craigslist but also through tailored job search sites. Paul received a few inquiries but never received an interview. In his late 50s, Paul attributes his lack of success to the glut of young people with computer science degrees applying for the same jobs.

Paul's case provides the context for understanding the incongruity of the expectation placed upon low-income adults to improve their educational and economic opportunities rather than, say, watch music videos and scroll social media, when they use technological resources supported by public funding. There are those rare cases in my research like Paul, with degrees and experience in IT; there are those in the majority of my participants who maintain a working knowledge of word processors and internet navigation; and there are those in my research who arrived at the People First agency needing assistance to complete a basic Google search. Even with the advantage that Paul had over those in the latter category, the gap still was too wide, in Paul's experience, between him and young people fresh out of college with degrees in computer science. In lieu of a job in his field of IT, toward the end of my research, Paul ended up finding work stocking shelves at a grocery store. This put him into the same employment category of low-skilled work as those with little or no IT experience.

If not often for my formal employment prospects, basic internet access and skills *were* instrumental to the means of income most common to my participants. Government assistance was the safety net for the unstably housed adults of Waterside who were often locked out of the formal job market due to a variety of conditions such as former and ongoing disabilities, criminal records, low educational achievement, and by their approach toward senior status. Government assistance came in the form of unemployment benefits, supplemental security income (SSI), disability insurance (SSDI), housing assistance, supplemental nutritional assistance (SNAP, better known as "food stamps"), assistance for families with children (TANF), and Medicare and Medicaid, among others. There were also the forms and check-ins required of them to maintain client status with nonprofit organizations, such as People First. Applying and maintaining eligibility for these programs involved my participants in the frequent task of going online at the agency, library, and, to a lesser extent among those who I met, on personal devices, to navigate state and federal systems designed for the provision and tracking of government assistance. Joined often by a social worker or library assistant, I watched as my participants navigated state and federal websites. When other assistants were unavailable, I struggled along with my participants to log into their accounts, upload scans of their IDs from their phones, and check on the status of applications they had filled out weeks or months ago. Witnessing my participants manage the transition in government and social work to digital means of welfare provision (Eubanks, 2018), I was reminded of Gangadharan's (2014) conclusion that, even as they alienated from many of the marketable skills of digital proficiency, marginal internet users are in this way "embedded in information and communication infrastructures regardless of personal choice, means, or capabilities" (601).

In addition to the instrumental work of maintaining their access to public assistance, my participants also turned to computers, phones, and the internet for care work and coordination in their interpersonal networks. I refer in Chapter 3 to the role of mobile phones in the coordination of doctor's appointments, car rides here and there, and childcare for couples and families and their children for whom one of more members were experiencing homelessness. In addition to the work of maintaining their access to public assistance, then, my participants spent time on their mobiles and on computers engaged in the instrumental work of ensuring the health and well-being of those in their families and support networks.

Using the Internet to Escape: The Trouble of Private Leisure on Public Computers

There is thus a lack of promise in the minds of my participants for digital internet access and skills to translate into chances at formal employment. There was additionally the increasingly *digital* burden of maintaining government assistance and sustaining the health and well-being of family, friends, and partners. Leisure uses of the internet thus presented themselves to my participants as avenues of relief and enjoyment from instrumental pressures. I discuss how participants sought out private escape through internet use before turning to internet use for socializing with those around them.

The use of the internet as a means of private escape was a common practice among the unstably housed adults whose lives I followed in Waterside. For the purpose of private escape, playing digital games, consuming movies and music, and scrolling social media were prominent activities. The internet could be a means of private escape when people could engage in these online activities without the intrusion of others into their activity, such as by interruptions, overlapping noise, or onlooking. Two conditions for private media use were having one's own

device and having a physical space in which one could interact with digital media without the intrusion of others.

With a sufficient mobile data plan, available wi-fi, or downloaded media or games, mobile phones fulfilled the conditions for private escape through online leisure activities. For my participants, however, mobiles were often unreliable means of internet access, particularly for the demands of common online leisure activities. On the one hand, my participants regularly went without phone access or mobile data as they struggled with secondhand devices and theft and loss in the context of unstably housing conditions (Author, 2019). When working smartphones were in hand, it required significant expenditure relative to my participants' income levels to maintain a phone with sufficient processing ability and mobile data to allow for leisure activities like streaming videos from YouTube. Without mobile data, my participants relied on public wi-fi hotspots, where they used headphones to separate themselves and their media activities from the public activity around them during the daytime.

The conditions for achieving private escape through online leisure activities were even more demanding when it was a public computer on which my participants relied for going online. Again, the public setting could be overcome by accessories like headphones. Vicki is a middle-aged white woman who was homeless at the start of my study and who continued to rely on public computers for internet access even after she secured housing, as she could not afford a mobile data plan or home internet connection. I interviewed Vicki on multiple occasions over the years as she used a computer at the People First agency, which she would do most days and for several hours at a time. Most of her computer time was spent on Facebook and on those websites that are linked from posts on the site. Although she has attempted to sell jewelry over Facebook,

most of her time is spent scrolling her news feed and sharing content she enjoys as well as sending message to her children who live in different states.

Below, I quote Vicki as she expresses pleasure in socializing with people in the agency's community room while she is using the computer. However, the balance between privacy and socializing that Vicki seeks is evident in that Vicki is most commonly situated at the computer in a way that reduces the chance of interruption. In addition to the large headphones plugged into the desktop, Vicki wears sunglasses and a sun visor low over her eyes as she uses one of the five computers set up in a row close by to one another on a long table. "What do you want?" Vicki asks, one day, as a regular to the community room, a man named David, taps her on the shoulder while she is composing a Facebook message.

These kinds of interruptions were common at People First and made it difficult to escape into one's own world through use of the internet. The women I spoke to seemed more sensitive and vulnerable to these interruptions than the men. "There's always something, someone talking too loud or taking up too much space," says, Leticia, a middle-aged black woman living in subsidized housing, says of the environment at People First. While Leticia sees a social worker at People First, she does not linger after her meetings are concluded as many others do, to hang out in the community room and converse with other homeless and low-income visitors. She explains her hesitancy in regard to her past experiences with crime and interpersonal violence growing up in a poor neighborhood on Chicago's west side. Leticia likes to "keep a low profile" in her interactions with others in public.

For Leticia, the Waterside library is a more neutral site in which people have an expectation not to be bothered. Without any kind of personal smart device or a home internet connection, Leticia visits the library most every day. Leticia enjoys online games, primarily with

farming and casino themes. Her regular habit of playing these games is evident in the number posts on her Facebook feed most days generated automatically by such games, indicating her upward progress and inviting others to join. Illustrating the neutral expectations of the library by means of an exception, Leticia gives the example of a man who recently took up more than his share of the desk between her computer and his at the library. Leticia ended her session early and left the library rather than to ask the man to move his things. Leticia shakes her head, concluding the story. “I’m moving up. I’m gonna get my own – what you call it – notebook. And get my own Internet, and just keep it at home.”

Using the Internet to Leisure Together: Entertainment and Social Media

Public computers are generally a poor avenue for achieving private escape for those unstably housed adults in Waterside who have no available alternatives to internet access. In addition to leisure as a means of private escape, however, studies of leisure and mental health also investigate the role of communal leisure activities (Coleman & Iso-Ahola, 1993). Studies of leisure point to the role of communal leisure activities in strengthening interpersonal bonds, including ties for social support for people experiencing homelessness in urban centers (Hodgetts & Stolte, 2016; Klitzing, 2004).

What are the conditions for internet access on public computers in Waterside that allow for communal leisure of such a kind, that can contribute to interpersonal bonding and social support? In early 2017, Vicki and I sat at in front of a computer at the agency. I asked her why she preferred the agency over than the nearby Waterside library to go online. Vicki replied:

“Go to a library, and then come here and you'll see. Analyze what's different there and different here. For me, I have [an] association with like-minded people [at the agency] who are

all in a certain type of situation. Or [who] are looking for a way out and into something better. You also have freedom, in the sense [that], at the library, you can only use this [points to the computer] for two hours. Here [at the agency], I can use it all day if I need to. And you can *talk*. You can't talk in the library. [Lowers her voice.] You have to keep it quiet."

Vicki's comments directed me to investigate the rules of norms around social interaction in each institutional setting of computer access. Her comments pointed further to the role of time limits and other aspects of technology availability. In this vein, I observed interactions with and around digital media on public computers at the People First agency of a kind I did not observe at the Waterside library. In the following sections, I illustrate how these interactions with digital technologies and with others unfolded at People First, while they tended to be stifled at the Waterside library. I begin with the communal use of entertainment media on music and video sites before turning to interactions spurred by social media.

Entertainment Media and Co-present Bonding

Entertainment media on public computers were the grounds for interpersonal bonding at the People First agency. I consider in this section the interactions among socially isolated, unstably housed adults like Gloria, Vicki, and Leo who were struggling to develop social bonds while living on and off the street. I consider how a lack of time limits and the personalization of public computers at People First contributed to the leisurely communal use of computers there, as well as how the norms around noise allowed for talking and singing around music coming from computer speakers.

An African American woman in her early 60s, Gloria is a regular a presence at the People First agency, as regular as many of the agency's staff. Unemployed and homeless, like many

urban low-income residents, Gloria takes to the nonprofit as a site of refuge from the street. Speaking with Gloria's sister, I learn that Gloria has had difficulty maintaining relationships with her family during periods of homelessness, often going without contact for weeks or months. Gloria arrives most mornings to find a spot at one of the agency computers. She prefers one computer, in particular. Gloria uses this terminal to engages in a range of activities online and she occupies the computer throughout the day. The computers at People First do not have the log-in or security protocols of the library, and the agency does not limit her time on the computer, so long as there are computers available for others to use, which is typically the case. Throughout the day, allowing me occasionally to join her as she does so, Gloria checks entertainment news on Yahoo, searches for apartment listings, plays music videos, checks her Facebook, and replies to email offers for low-interest loans. Gloria prefers to use the same computer each day to go online, leading the agency to call this computer "Gloria's."

Gloria is one of many clients who make it a habit to play music and videos audibly through speakers available on several of the terminals. Staff ask computer users to turn down the sound, on occasion. When the lounge is less crowded and patience is in good supply among the staff, though, one can hear documentary videos, sports broadcasts, old movies, and pop songs playing over computer and smartphone speakers throughout the office lounge. Multiple people sit around the same computer watching a movie and conversations extend from the content on the screen to include the wider room.

Opening YouTube on "Gloria's" computer, one can find a list of automated suggestions on the website homepage that summarize Gloria's musical tastes. Though Gloria does not sign into YouTube, the lack of security and privacy protocols on the computer allows the web browser to store usage history and display suggestions to its most frequent user, Gloria. In the list

of suggestions, black artists feature prominently across genres of soul, R&B, funk, and pop music. When the mood strikes her, Gloria will rise from her seat in front of the screen. Slightly hunched, she raises her arms to waist height. She steps from one foot to the next with the beat of "Thriller" or "What's Going On?" and sings along. Often her performance will elicit a response. "Get it, Gloria!" encourages one of the social workers, a young white woman. "Alright, Gloria!" remarks Leo, who sings along when the chorus comes. A thin black man in his early sixties, Leo works as the building custodian. He was once the lead singer of a band, one that formed while he was incarcerated at the county prison. Spurred by the music Gloria and others play from the computers, I often observed Leo lead sing-alongs around the lunch table. Gloria's reputation for as the office DJ on her own computer extends to holiday parties thrown by the agency. Together on these occasions, the office steps and twists on a makeshift dance floor in front of the computer that knows Gloria's passwords and her tastes.

Entertainment media at the library

The ability to play music and videos audibly to the room creates opportunities for interpersonal bonding over shared objects of entertainment culture, as witnessed among Gloria and the other visitors to the People First agency. There is evidence that the same kinds of interactions are in demand at the public library. However, singing aloud and other audible interaction is discouraged by library staff based on a broader policy toward minimizing noise and distraction (e.g., Gayton, 2008; Massis, 2012). I note in my field notes, for example, regular occasions at the library in which people played music audibly over their devices and were told politely to use headphones. On one occasion, my field notes describe a woman, black and in her middle age, sitting at one of the 15-minute "express" computers, who began singing softly to

music playing over her headphones, which were plugged into the computer. The woman began singing louder, dancing in her seat, and glancing around with a smile to me and others sitting at the nearby computers. Shortly after, and without finding those at the computers around her joining in her dance and song, the woman was approached by a security guard who asked her to turn down the music. The woman continued to move in her seat to the music, which was still audible to me over her headphones. The woman's session expired shortly after and she sighed, gathering her things to leave.

Involving the room to make social media more social

Entertainment media accessed through the computers at People First provide the grounds for socially isolated, unstably housed adults to engage in bonding around communal leisure, while the same kinds of activities are more restricted at the library in the interest of quiet and individual engagement with library resources (e.g., Gayton, 2008; Massis, 2012). The second kind of noisy, communal interaction around digital media I observed at the nonprofit that was restricted at the library was around social media. Here I illustrate how social isolation extends to social media from the offline context for unstably housed adults, and how in-person interactions can fill in for a lack of interactions online.

I begin at the library, where Abigail and Marco whisper from nearby computers as they both scroll their Facebook accounts. Abigail cannot believe Marco has not seen Keanu Reeves' last film. The two talk as they sit next to each other at computers in the main room of the Waterside library, taking advantage of the two hours per day each patron is allowed by library policy. A woman of Korean descent in her late 40s, Abigail is unemployed and living month to month in a low-rent apartment in the neighborhood, paying the cost from her disability income.

Marco is a Hispanic man around the same age who is also unemployed and on disability income. He lives in a modest studio apartment in Waterside, for which he receives monthly government assistance to afford rent.

Around Abigail and Marco, the Waterside library is bustling with quiet activity. Adults of various ages and ethnicities sit at tables adjacent to the computer stations, browsing magazines, staring into their laptops, and thumbing at their phones. Two men carry on a conversation in Spanish in low tones while staring out the window into the residential street. All are watched over by a librarian, seated at the help desk, and a security guard, standing nearby. After greeting Abigail and Marco, I sat at a table nearby, where I could take in the scene while working on my laptop.

As Abigail and Marco talk, they contend with the quiet environment that the library staff are responsible to maintain. A Facebook post starts the conversation. Abigail had posted to her feed an article featuring a story on Keanu Reeves, the actor. The story commended Reeves for his charity work. The post featured a photo of the celebrity with two smiling youth. It matters to Abigail that Reeves, whom she finds talented and attractive, cares about the less fortunate. She expressed as much to Marco. Marco responded with a question, leading Abigail to go on about Reeves' character, her voice rising in volume with enthusiasm. The two are interrupted by the arrival of the security guard to their seats. The security guard, a young black woman in a blue uniform, speaks in a polite but firm voice. Abigail apologizes for the volume of her voice and both she and Marco return to quietly scrolling their feeds.

Abigail and Marco had returned to silently scrolling their respective Facebook feeds on their adjacent computers when Abigail again began to raise her voice. Her tone shifted to frustration. Some context for Abigail's frustration may be provided in regard to how she relates

to her Facebook account. Abigail fills her feed daily with posts, typically re-posts like Vicki's, including inspirational quotes and comedic takes on pop culture and current events. Unlike Vicki, Abigail has relatively few friends on Facebook: less than 30. Abigail once admitted to me that she is "not very good at Facebook." She worries that she will not be able to delete friends once she has added them, so keeps few on her list. Perhaps due to the inactivity of her few friends, very few of Abigail's posts receive feedback in the forms of likes and comments. Occasionally, Abigail's posts receive a "like" and a confirmatory comment from Vicki. Vicki, whom I have introduced above, is a friend of Abigail's after the two met at a charity meal in the neighborhood. On other posts of Abigail's, a single "thumbs up" or comment appears on the post, which Abigail herself has added.

Back at the library, reviewing her personal feed, Abigail leans over to look at Marco's screen. She wonders aloud if Marco can see her post, concerning Keanu Reeves, on his own feed. Marco scrolls but cannot find her post. Abigail wonders aloud, in a tone of frustration, why this is the case, figuring that because they are both friends on the site, her post should appear on his feed. The security guard takes notice and begins to walk Abigail's way. Preempting the security guard, Abigail apologizes as the former arrives. Abigail and Marco return to their independent screens. A short while later, both of their sessions expire. The software installed on the computers automatically logs them out, and the two get up to leave. On the way out, their voices rise again, discussing neighborhood churches that are offering charity meals that night.

Social Media at the Nonprofit

I return to the noisy environment of the nonprofit to observe another occasion in which social media content becomes the subject of conversation for people sharing the same space.

Like that of Abigail and Marco, Darlene's case suggests that where interaction is lacking on social media, social media users may seek it in the immediate offline environment. A stylish woman in her early 50s, Darlene enters the People First office on a winter day in 2018 and finds a seat at an open computer. The agency is Darlene's primary site for internet access, rather than at home, on her mobile, or at the library. Darlene does not have internet service in the apartment she shares with several friends; her and her roommates are barely able to afford rent. Darlene purchases mobile data for her smartphone when the extra cash is available but avoids using Facebook. Using the site "eats up [her] gigs." I ask Darlene about the library. She says she visits on occasion. "They only give you an hour" on the computers, though, she says.

Darlene scrolls her feed until she comes across one of her own posts. The post is a photo she added several days earlier. In the photo, Darlene is smiling, locking arms with another woman close to her age. There are no reactions or comments to the post. Indeed, I marked in my field notes that, as we viewed Darlene's own posts, like with Abigail, few if any of Darlene's posts received comments or reactions. Darlene laughs at the photo and tells me that the photo is of her and her sister. Another regular of the agency, a thinner black man named Joseph, who is homeless, stops by Darlene's computer. Seeing the photo, he speaks up. He compliments Darlene and her sister: "You two look good!". Darlene continues to look at the post, smiling and thanking him.

Darlene continues to scroll until coming across another post of hers. The post features a video of a church choir, all black, singing an energetic praise song. Unlike the photo of Darlene and her sister, she has "re-posted" this content, which was originally shared to Facebook by a user on the social media platform Instagram. The original post on Instagram had several thousand reactions in the form of "loves" and comments.

Darlene clicks to begin playing the video aloud over the speakers connected to the computer. Darlene raises her arms and waves them in the air, imitating the choir. Pointing at the screen, Darlene notices the number of reactions garnered by the original post when it was posted to Instagram by another user. "A thousand people are watching my video!" Darlene exclaims. She turns her head around, first left, then right, gathering the attention of other agency visitors sitting nearby and walking past. Looking on, I noticed that Darlene's re-post has only one reaction, a "love". Darlene seems not to notice this fact or does not mention it. Instead, she continues to sing and wave her arms in the air. A woman and several men at the table smile and look on, as Darlene gestures toward them to join her.

Funding Agencies and Leisure Uses of the Internet

Everyday interactions among staff and visitors to the nonprofit and library are marked by tensions around leisure uses of the internet. The source of this tension is not limited to the everyday whims and habits of frontline staff as they labor to make the internet available to those who seek it through public sources. In reviewing the instrumental lens on technology access for the poor in Chapter 2, I argued that the approaches of local community organizations are shaped by the responsibilities of those organizations to funding agencies and sponsoring institutions. A nonprofit like People First and even the Chicago Public Library system can provide the technology and literacy programs they provide by securing funding from nonprofit organization like the Gates Foundation and from companies like Google whose own philanthropy goals align with the instrumental view of technology access as economically productive.

At odds with the neatness of public-facing reports, what I have observed at the Waterside library and, in more depth at the nonprofit, is a wide range of more and less "productive" internet uses as well as willingness to a greater and lesser degree among staff to accommodate this range

of uses. The philosophy and practice of staff at the nonprofit – and, as I explore below, in other ways at the library – aligned with an unstructured approach of computer use (Servon and Nelson 2001), that is, in supporting visitors in their wide range of motivations for internet use. Nevertheless, reports to funding agencies presented a more limited philosophy of technology as an instrument of economic participation and educational attainment. It is this disconnect between practices on the ground and fundraising prerogatives that I wish to explore in this section.

The enforcement of a quiet policy at the library may hamper ways of using the internet for entertainment in a communal way. In other ways, though, the staff at Waterside library worked to bend the technology resources that were "meant" for instrumental purposes to fit the social and leisurely motivations of their patrons. As I describe in Chapter 2, in reports on their website, the Chicago Public Library system consistently highlights outcomes of their technology resources related to employment and education, such as the number of jobs secured by patrons or the number of digital literacy courses completed. Of the reports I viewed, none make mention of their patrons watching movies and posting to Facebook. Yet, in my observations over several years at the library, I observed that, certainly, the unstructured nature of internet access at the library supported these activities, at least in a quiet way. More importantly, so did the digital tutors, called "Cyber Navigators".

Indeed, I mark in my field notes several occasions when I sat in the library and overheard a Cyber Navigator helping a patron, usually in their middle age or older, understand how to post and comment on Facebook. I recall a man who appeared to be in his early 60s, white, tall and with gray hair and glasses low on his nose, peering into his laptop. He had reserved a one-on-one, 45-minute session with the computer tutor, a young woman of Asian descent. The man spent the session having the young woman assist him as he attempted to make a post in

Facebook group formed by his friends. I recall being surprised how enthusiastic the young woman was to help the man with this social use of the internet, expecting, based on my reading about the tutor program online, that she would steer the conversation toward a more "productive" uses of the internet such as managing an online bank account or detecting spam in his email inbox. Thus, even the resources most explicitly described on the library's websites as geared toward economic and educational outcomes, the Cyber Navigators, were on the ground dedicated to supporting the broader set of motivations patrons had for using the internet, including social uses like interacting with friends over Facebook.

I was not privy to the conversations of library staff around the tensions between practices on the ground and the prerogatives of fundraising and public image. I was, however, able to observe these conversations and their tensions at People First. It is important to emphasize that People First is an agency who's stated focus in workforce development, manifest in courses on resumes and job interviews and an extensive referral program for entry-level jobs. The provision of public-access desktop computers at the agency since the late 1990s followed, at least in external reporting, in this mold of prioritizing employment. The agency describes their public-access computers on yearly reports as avenues for clients to "apply for jobs," "learn digital skills," and, more broadly, yet still conceivably tied to employment outcomes, to "check email."

My fieldwork within People First allowed me a view of the nuances staff addressed in keeping their technology offerings funded while accepting the reality that their clients and other visitors off the street tend to use the computers both for resumes and job searches as well as to watch movies and scroll Facebook. In my second year of fieldwork, I gained the permission of the staff to conduct an informal focus group during a staff meeting. At the time, a volunteer for the agency with experience in grant-writing was preparing an application to send to a number of

nonprofit foundations to improve information technology at People First. The staff meeting included full-time staff, three women with degrees in social work, as well as part-time staff who are former participants in the agency job programs and who had been promoted to assist part-time in the running of those programs.

Handing out sheets of paper with a number of open-ended questions, I asked the staff to reflect on what the computers were "for" and "not for" at People First. The director of programs spoke up first. She said the computers were for "staying connected" and mentioned email and social media. She emphasized social media, saying that it helped clients "find out where people are and what they are doing" and that social media was "more stable than phones" for maintaining such contact with family and friends. Staff members who assisted with the job programs spoke up next, saying that the computers were "mostly" for job searches and resumes.

I then turned the conversation to what the computers "were not for." Pornography was mentioned first, a comment which received knowing nods from around the table. "Inappropriate content" of a sexual nature often came "in the form of a Facebook post," said a staff member. A former client who was enthusiastic about the job programs spoke up, adding that the computers were not for "playing Candy Crush for 8 hours a day." Another answer was "watching movies." A former client complained of people who "park at a computer all day." A short discussion resolved this issue as relating primarily to "one person." Someone mentioned Gloria's name, eliciting more knowing smiles around the table. The director of programs reflected on the general availability of computers in a typical day, musing how the demand for computers relative to the availability on any given day was most often "miraculously balanced."

One of the former clients, a black man in his early 60s who had worked part-time for the agency for over a decade, turned the conversation to funding agencies. The computers are

"useful in grant applications," he remarked. "Whether movies or whatever, we have the traffic to show that people are utilizing the computers." The conversation led to the question of where to prioritize new funding for information technology, if it could be secured. Speaking plainly, the executive director said that the priority lied with upgrading the staff's computers rather than those available for clients and visitors. Several computers of staff members had "crashed" in recent weeks, she said, jeopardizing the essential functioning of the agency.

The conversation among People First staff provides two related insights on the role of funding agencies and public reporting in shaping the tension around leisure and social uses of the internet at nonprofits. First, staff at these organizations are likely to be flexible in their philosophy of what the computers "are for" when they are offered as publicly accessible. The role of social media as a communication channel for interpersonal networks of unstably housed adults is an interesting case. Though this function of social media was not reported in the agency's yearly summaries to the public, at least some among the staff were enthusiastic about how social media facilitates communication and reconnection for clients and their interpersonal networks. While several part-time staff spoke against online games and movies as proper uses of computers, the staff arrived at a consensus of toleration toward these activities and the lengthy computer sessions that these activities inspired among some clients. As long as computers continued to be "miraculously" available when needed, and as long as users were not pulling up pornographic content, the professional staff were accepting of people like Gloria in her practice of "parking" on a computer all day to listen to music in between and around searching for apartments and jobs.

Even as staff were willing to absorb a range of internet uses as coherent with or harmless to the agency mission, however, they were cognizant of the need to frame the use of computers

in a certain way for funding agencies. Again, in accordance with the instrumental philosophy, watching movies and playing games were mentioned as undesirable uses of the computers. All the instances of people signing in at the front door to use the computers to watch movies could, however, contribute to the agency mission, so long as computer activity was undifferentiated in reports and only "traffic" was reported, such as how many people signed into use the computers each day.

The nuances that emerged in the staff meeting at People First around, for example, the role of social media use in maintaining interpersonal networks, did not, however, ultimately manifest in the grant application under consideration at the time. After the staff meeting, I joined the woman who was volunteering to write grants for People First in her office to follow up on her plan for an application. I mentioned the public-access computers in the office and the different ways I noticed that they are used, as well the lack of security protocols and often-poor functioning of the refurbished machines that the agency received as a donation from another nonprofit. Rather than address these set of public-access computers, however, the volunteer explained why she would focus on a different goal.

The idea the volunteer grant-writer had in mind, in conversation with the executive director, was to propose a set of tablet computers on which clients would train to perform point-of-service transactions, such as would support employment as cashiers at stores or restaurants. In other words, the priority for new funding would be geared toward a set of devices that could be explicitly earmarked for workforce development. Referring to her experience over several decades with grant applications to national foundations, the volunteer argued that it was better to avoid mentioning the entertainment uses of the computers and the security flaws with the computers, as these facets would "reflect poorly" on the agency. The volunteer was sympathetic

to the poor state of the public-access computers at the office, mentioning how she had seen in other agencies how nonprofit clients with few digital skills often blamed themselves when computers froze up or refused their commands. Yet, she told me, her experience showed that funding proposals needed to be directed toward measurable outcomes tied to the particular organizational missions, such as the workforce development priority of People First.

Discussion

In this chapter, I have examined the online leisure and social activities of women and men struggling with social isolation and stress in the context of homelessness. My participants turned to the internet to aid them in mentally coping with the conditions of poverty. Unstable access to personal devices and private internet connections among my participants leave them seeking ways to leisure and socialize with the aid of the internet on public computers.

The findings from Waterside suggest that using the internet for leisure and social activities has the potential to foster interpersonal bonds and group cohesion with co-present others. The visitors to People First used media on computers to engage in song and dance together and to supplement online social media with in-person interaction. Activities such as listening to music, watching music videos, checking entertainment news, and scrolling Facebook for entertaining posts are not typically associated with positive life outcomes in usage gap research (A. J. van Deursen & van Dijk, 2014; Zillien & Hargittai, 2009), if they are considered at all. Such activities and their associated potential to facilitate interpersonal bonding and social support (Coleman & Iso-Ahola, 1993) are more likely in institutional settings with fewer restrictions on noise and computer use. There is a trade-off, however, with the ability to engage in leisure activities as a means of coping with stress through private escape. Though the library

made the feeling of private escape more attainable than the nonprofit, the nonetheless public nature of the library, as with the agency, limited the effect.

The observation of daily life around public computers in Chicago highlights the importance of leisure and social uses of technology for members of low-income communities. The findings provide a number of insights for digital inequality research on the beneficial uses of the internet for people who lack access at home. First, in their use of public computers, low-income adults prioritize social and entertainment uses of the internet alongside instrumental uses. While this study did not collect activity logs or self-reports on internet use, in-person observations speak to the frequency with which low-income adults spent time on computers for reasons other than those considered productive to education and employment. These observations speak to an empirical reality that goes unmentioned in much scholarship and policy discussion yet that motivates much internet use among people who rely on public access to technology. Public programs have been adapted to encourage play and tinkering among low-income children and youth as they engage with technology (Sebring et al., 2013). There appear to be fewer opportunities for low-income adults to approach technology in the same way, when relying on public resources.

Second, social and entertainment uses of the internet contributed to social bonding and mental well-being, though not in the way that researchers have typically anticipated or measured. Co-present interaction in spaces amenable to noisy exchanges was the common denominator in promoting interpersonal bonds. For adults like Abigail whose offline social network was constrained by the circumstances of homelessness, social media was a reminder of that isolation as much as it was a corrective. It was by involving the people in the room that Abigail or Darlene could use the internet in a social way, when social media produced little of that interaction on its

own. Additionally, entertainment uses of the internet involved co-present others in song and dance in a way that reinforced the feeling of community that Vicki described as her motivation for going online at the agency rather than the library.

Finally, these points emphasize the role of different institutional policies and environments in shaping internet use and therefore, the social implications of internet use. The motivation among many low-income adults was to find a site of computer access – in this case, the nonprofit – where they could engage in conversation and song and dance with others while using the internet on a computer. The library tended to emphasize individual engagement with technology, while the nonprofit allowed for a kind of noisy interaction where the internet activities of one person could become the business of the room. Studying the benefits of internet use means understanding the environments in which people go online, particularly for people who have fewer options for where and how they access the internet.

Conclusion

The experiences of unstably housed adults using public computers in Chicago support the idea that a "leisure divide" is a significant and underexamined axis along which digital inequality rotates (Arora, 2019). Digital inclusion should be marked, Arora (2019) argues, not by assuming a different set of digital practices upon the poor than are expected of the rich. Studying new internet users across developing countries informed Arora of the reality that using the internet to entertain oneself and socialize with others is a central motivation for adopting new technology. Leisure and play around computers are avenues for entry-level digital inclusion as much as formal programs (Sandvig, 2001).

This in mind, policies and community interventions to address the digital divide of computer access require a consideration of a wider range of motivations and needs tied to internet access for low-income, urban populations. Finding ways to encourage internet use that is safe and productive to life outcomes should remain a priority. At the same time, researchers and policymakers should work together to address the other motivations that people have, particularly the unstably housed, for using the internet. Providing third spaces where people living on and off the streets can feel welcome and a part of a community – and where they can incorporate media and technology along these lines – should be an intentional process. Security protocols could allow for users to log into computers and find their online accounts saved within the web browser as a result of their unique log-in and lasting for the duration of their session. Quiet hours could be limited to certain times of the day, and special programs could bring together users around computers for the express purpose of exploring and sharing in the enjoyment of pop culture and other interests. In sum, the study points to the need to align scholarship and policies with the reality of communication as ritual, even for those who stand to benefit the most from the internet as a tool of advancement.

Chapter 5

Connective Ambition and Creative Caution: Searching for Material and Emotional Support from a World of Strangers on Facebook

In the last two decades, researchers have examined the potential for members of marginalized communities to enhance their social capital through the use of the Internet, and of social network sites (SNSs), in particular (Burke, Kraut, & Marlow, 2011; Ellison, Steinfield, & Lampe, 2007; Ellison, Vitak, Steinfield, Gray, & Lampe, 2011; Kraut et al., 1998). More recently, scholarship has shifted to study the "downside[s] of digital inclusion" for disadvantaged groups (Seeta Peña Gangadharan, 2015), addressing the risks for social media users of low socioeconomic status (SES) around privacy, scams, and surveillance (Li et al., 2018; Vitak, Liao, Subramaniam, & Kumar, 2018). The stakes of social media use for people in positions of structural disadvantage is framed as a matter of users "negotiating" opportunities for social capital with the presence of privacy risk (Ellison, Vitak, Steinfield, Gray, & Lampe, 2011).

It is not clear from existing scholarship the extent to which disadvantaged users themselves understand their social media habits in terms of "opportunity" and "risk". Significant attention not been paid to how experiences of marginalization, particularly of urban poverty, inform attitudes and practices on social media. Social capital research in the online domain relies largely on data from college students and the middle class (Ellison, Lampe, Steinfield, & Vitak, 2011). On the other hand, our knowledge of privacy risks for disadvantaged Internet users comes mainly from largescale surveys (Li et al., 2018), which lack sufficient elaboration on the experiential context for attitudes toward online social networking.

The aim of this chapter is to understand how my participants engage with Facebook, an SNS that promises to connect its users to "their community and the world" through a computer

or smartphone screen (Hoffmann, Proferes, & Zimmer, 2018). I begin by laying out how researchers have framed issues of opportunity and risk on social media, focusing on the Facebook platform and what is at stake for marginalized communities seeking social connection on it. I point to gaps in the literature in studying the embedded practices of disadvantaged users of SNSs. Reporting the findings, I present the cases of four of my participants – Vicki, Eric, Paul, and Leticia – in detail. I introduce the notion of "connective ambition" to account for how participants measure their progress in overcoming housing instability based on their Facebook presence: from having an open account to how many connections they have established on the site. Relying on different degrees of digital literacy, my participants attempt to shield themselves from unwanted and risky online connections through atypical means, tactics I call "creative caution."

What I find by studying the social media practices of unstably housed adults in north side Chicago is that Facebook is a resource to the extent that my participants understood certain technical features of Facebook, such as audience and privacy settings, and to the extent that my participants were willing to expand their presence outward in networked publics and identify as homeless online. Risks often outweigh benefits as Facebook becomes a haven for scammers seeking to take advantage of the social exclusion marginalized users face in everyday life. Promoting privacy and fundraising skills is a frontier for the digital inclusion of socioeconomically disadvantaged users. Yet skills are not a silver bullet: disadvantaged users such as those experiencing homelessness face difficult choices in whether to present themselves as homeless online in order to appeal for help, as people experiencing homelessness may wish to conceal this fact from potential employers and to reduce it as an aspect of their identity in interpersonal circles. The barriers to digital inclusion are thus not only instrumental – e.g.,

limitations in internet access and skills – but also social and perceptual – e.g., the stigma that follows marginalized users as they venture into networked publics. In the following, I present the divergent findings of social media scholars in regard to the stakes of platforms for marginalized users.

Social Capital, Privacy, and Marginalization in Networked Publics

How does economic marginalization shape participation on social media platforms? What outcomes are likely as people experiencing housing and income instability turn to social media for social connection and financial opportunity? One way to look at social media use is to consider how people may benefit from strengthening, expanding, and diversifying their social networks online. Sociologists describe how disadvantage is entrenched through network homophily: marginalized people tend to know primarily other marginalized people (DiMaggio & Garip, 2012), particularly in the case of urban segregation (Wilson, 2012). Online communication in general appears to be more diverse for members of disadvantaged communities than by phone or in person (A. L. Gonzales, 2017).

At first glance, social network sites like Facebook appear to have maintenance and expansion of personal networks as their central affordance (Donath, 2007). Facebook users with more "friends" are more likely to score high on measures of social capital (Burke, Marlow, & Lento, 2010). This may stem from the ease with which social media users can store latent and weak ties to tap into for future need (Ellison, Lampe, et al., 2011; Ellison et al., 2007). It seems the benefits accrue more for maintaining and spurring relationships with offline contacts than striking up ties with strangers. And it matters how the technology is used. Passive consumption tends to be associated less with enhancement to social capital than content production and

directed communication (Burke, Kraut, & Marlow, 2011) (Burke et al. 2010), though recent research suggests passive browsing may be more prominent and have its own uses for information dissemination (Metzger, Wilson, & Zhao, 2018).

Studies of online networking by marginalized populations are rarer, though portray a pessimistic view. Research on rural youth in the U.S. has found that network brokerage via social media is more often a failed endeavor, even backfiring due to schemes advertised online, such as high-interest loans (Rickman & Sandvig, 2014). Similarly, an ethnographic account describes how young Ghanaians operating out of cyber cafes were stymied in their attempts to gain from online connections to users in developed countries, due in part to an inability to master the relevant norms for interaction in an online environment (Jenna Burrell, 2012). Thus, we might expect that low-income adults in the inner-city U.S. are unlikely to experience advantages from social networking online. Yet there is little empirical evidence for why this is the case in the current social media environment, as a majority of U.S. adults over 50 now use Facebook (A. Smith & Anderson, 2018). Moreover, it is worth understanding why networking of the kind that might advantage low-income adults fails in practice.

On the other side of the opportunity lens is the view that prioritizes the risks of online participation and the digital divides that enable them. A growing body of research concerns itself with how social media users understand and seek to protect their privacy in a networked environment (Marwick & boyd, 2014; Palen & Dourish, 2003). Researchers acknowledge that privacy is complex phenomenon, shifting in concept across context, culture, and individual (Altman, 1975; Nippert-Eng, 2010; Nissenbaum, 2011). In the social media environment, achieving privacy means contending with the virtual architecture of networked publics, which departs from conventional means of gauging exposure (d. boyd, 2011). Users pursue technical

and other means to balance their exposure to virtual audiences. For example, young people approach the crafting of a social media post with a perception of what is appropriate and who they think is likely to see it, often obscuring meaning in public posts (Marwick & boyd, 2014).

The conditions for maintaining privacy and security on the internet are unique for low-income adults on Facebook (Seeta Peña Gangadharan, 2015). A recent survey of adults living in public housing in the U.S. finds that a significant factor motivating non-use of the internet is the concern over privacy and security online (Li et al., 2018). This is not surprising given that people who benefit from government aid are already more highly monitored by government agencies (Bridges, 2017) and that older and poorer adults are more highly targeted and susceptible to online scams (Gandy, 2009). The concerns might be heightened for women in poverty, as women are shown to be more concerned with limiting what they share online, anticipating unwanted exposure and advances (Martley, 2010).

The problem of protecting security on social media is particular for Facebook users in recent years, as Facebook has come under increasing public scrutiny for the presence of fake accounts and scams on its platform. Over a six-month period spanning 2017 and 2018, Facebook removed 1.3 billion fake accounts from its site, which the company said were largely bots pushing scams (Wagner & Mola, 2018). Though Facebook requires that people use their real names on the site, the company estimates that 3 percent of monthly active users at a given time are fake accounts, including accounts impersonating celebrities and public figures (Nicas, 2018). Technical and semantic sophistication of the kind required to protect one's privacy and detect scams in a social media environment may be lacking among populations with typically lower levels of skill in using computers, including older adults and those with less income and education (Ellison, Vitak, et al., 2011; Hargittai, 2002; A. van Deursen & van Dijk, 2010).

Research on opportunity and risk in participation on social media offers the general outlines for a study of how unstably housed adults in the U.S. approach their participation on Facebook. People experiencing poverty might be motivated to pursue social connection on Facebook in order to diversify their networks in the interest of upward mobility. At the same time, low-income adults are the least likely to know how to protect their privacy and security in a networked environment such as Facebook.

We have few accounts of how members of marginalized communities understand opportunity and risk on social media and the digital practices that follow from their understandings. It is likely that low-SES adults born well before the advent of the Internet develop views of SNSs that are idiosyncratic to their condition. Adults experiencing housing and income instability are likely to develop social media practices that are different than those of youth and the middle and upper class. Through in-depth interviews and participant observation with my participants in Waterside, this chapter asks how low-SES adults understand and pursue a social reach on Facebook in the context of their experiences with poverty. I begin by laying out the range of engagements with Facebook, from no accounts to intensive use, for people experiencing homelessness or at risk of it in Waterside. Then I turn to the cases of intensive users and barely users to illustrate differences at either end of the spectrum.

Logging onto Facebook while Homeless

There were many ways that people living in poverty in Waterside thought about Facebook and pursued a presence on the platform. Maintaining an active presence on the site was difficult for those among the unstably housed who intended to do so. Though not everyone had used the site, most people living on and off the street that I spoke to had opened an account at

some point, if they were not currently active on the site. Like in their possession of phones, people cycled through Facebook accounts and they kept multiple accounts going. On the one hand, people would forget their passwords. Perhaps their device on which their passwords were saved was stolen or broke down. Or they had been evicted from their homes and due to circumstances, gone a few months without checking the site. Sitting down at the library or People First or to a used laptop to log-in to their sites, people in these circumstances would struggle with their password before deciding to start an entirely new account. Old accounts would lay dormant. On the other hand, people often kept multiple accounts on purpose. I discuss these strategies later in the chapter.

Opening Up: Vicki and Eric's Wide Nets

There was a range of ways of approaching Facebook and the particular question of connecting with online strangers among my participants. Vicki and Eric represent one end of the spectrum. The simplest measure of their outlier status is the number of Facebook "friends" they had on their accounts. Each had over 1,000 site connections – and Eric had nearly 4,000 on one account – each more than anyone else I met. As I describe in my participant sketches in the chapter on my methods, Vicki and Eric are both white and in their late middle age, unmarried, and living alone – Vicki going from a shelter to subsidized housing throughout the course of my research, and Eric remaining throughout my research in between a shelter bed and the street. Both present cases of individuals who are relatively involved in the homeless community, through religious and political initiatives. Additionally, both were single when I met them and were on the lookout for a potential life partner. I describe in this section how their motives of gaining financial support for themselves and others melded with romantic interests as they casted

"wide nets" into a digital network extending far beyond the people they already knew or might have come to know if it were not for the Facebook platform.

Before describing how Vicki and Eric interact with the platform, a brief explanation of Facebook is in order. On Facebook, a user posts content and views the content posted by people in their list of site connections, called "friends" (boyd & Ellison, 2008). A user's personal feed is called their "Timeline" (formerly called their "Wall"). The timeline presents in chronological order content the user has posted, whether a bit of text, a photo, or a web link, as well as content in which they are mentioned or "tagged" by other people, as well as some automatically generated content, including account activities such as changing one's profile picture. A separate page, the "News Feed," presents activity from a user's entire friend network, as well as the pages they follow, and other content pushed by Facebook, such as announcements. Advertisements appear within the News Feed as well as alongside the content of any page on the platform. The Facebook platform relies on a set of algorithms for a range of site functionalities, from deciding what content people see in what order on their News Feed, to what friends the site suggests a user to add, to what advertisements the user is displayed (Van Dijck, 2013).

Vicki and Eric are intensive users of Facebook, in that they tend to use the site several times a day, when possible. Until Vicki was able to purchase a laptop and access the internet from her own studio apartment, later in my research, she relied on the People First agency and occasionally the library to go online, as I describe in the previous chapter. Eric told me he "hates computers" and "does everything on [his] phone." Eric describes in an interview that he checks his Facebook messages the first thing when he wakes up, and the last thing before he falls asleep.

Vicki and Eric are active on Facebook but their primary contributions in terms of the content that others see comes from "re-posting." That is, they scroll their own feeds for posts

they like from their friends or pages they follow, and the select an option that allows them to share the post they like on their own Timeline, to appear to their own network of friends. In a single day, Eric might share fifteen posts of gourmet recipes, while Vicki might share the same number of posts featuring Bible verses or inspirational quotes. It is rare that Eric or Vicki's posts attract engagement in the way of "likes," "loves," or the other "reactions" from others on the site. Even more rare are the posts that receive comments from other people.

Despite limited interactions in the way of comments and "likes," Vicki and Eric each maintain a long list of friends on their accounts. One day, at the nonprofit agency where I met Vicki, she called me over to the computer to show me that she had reached 1,000 friends on her account. Eric had surpassed 4,000 friends on his account at around the same time. Eric estimated that less than ten percent of his contacts were people he knew in person. He knew a larger number by reputation or mutual friends. The rest remained online strangers, aside from the subset with whom Eric had developed relationships with online. Similarly, Vicki estimated in general terms that "some" of her Facebook friends were people she knew in person. "Most" of them, however, were people she shared interests with, whether in hobbies or spirituality. As we scrolled her friends, we continued to come across people with whom she could not recall a shared interest or reason for connecting. In short, they were strangers.

Vicki and Eric have means to account for the number of unknown friends on their accounts. First, both are active in initiatives—a Christian ministry and political campaign, respectively—focused on the number of people experiencing homeless in Waterside, of which Vicki and Eric were included. In addition to local contacts who could assist in these initiatives, Vicki and Eric sought to expand their networks on Facebook as broad as possible. They each expected that doing so would benefit their initiatives through publicity and donations. Vicki

started a Facebook page for the homeless ministry and Eric became administrator of a page to represent the plight of a group of people without shelter who had set up tents beneath a highway viaduct in Waterside. Vicki struggled to attract people to "like" the page for the ministry. A message from Facebook offered to promote the page within her networks for a fee. Without the extra cash or a credit card to make the payment, Vicki turned to growing her network through sending and receiving friend requests with as many people as possible.

Considerations other than their homelessness initiatives encouraged Vicki and Eric to grow their friends lists with diminishing regard for the nature or veracity of the accounts with which they were sending and accepting requests. Vicki pursued financial opportunities on Facebook. She had ambitions to sell homemade jewelry and take on clients related to alternative medicine. These pursuits accounted for a great number of her Facebook friends, who are typically white, middle-aged women located in the U.S. of U.K. Vicki connects with a wider demographic when she perceives a shared interest in Christian spirituality. Such an interest is communicated through posts with scriptures or other "inspirational" messages accompanied by Biblical scenes or pleasant background images.

In addition to his efforts for homelessness advocacy, Eric has romantic and sexual interests in connecting with strangers on Facebook. As Eric scrolled his friends list with me, I saw that a significant number of accounts featured profile photos of women wearing little clothing, striking seductive poses. On my own, I navigated to many of these accounts, finding friends lists made up mostly of men. The women—or account holders posing as the women in their photos—would tag or "mention" these men in their friends list, drawing romantic advances from some of the men mentioned.

I asked Eric about the many attractive women who requested his friendship. “I guess I’m just a handsome guy!” he said, laughing. In fact, Eric tells me that one such request turned into a relationship. The woman, named Shanice, is black and in her 40s, Eric tells me. After talking by phone and video chat regularly for several months, Shanice surprised him by flying to Chicago to meet him. Not long after, Shanice gave him a surprising announcement in a text message. She told Eric that doing some research online, she found that his father, whom she knew from Eric had left abandoned him and his family when Eric was young, had in fact left Eric a property in his will. The property and house happened to be in the southwestern state where she lived. Eric began sending Shanice money every month to pay the back taxes she said needed to be paid before the property would be released to him. Another visit followed some months later, and the relationship deepened. her 40s. The two got engaged a year into their relationship. Eric continues to send Shanice money out of his monthly disability check, and even saved up to buy and send her a new iPhone to keep in better touch with him.

As the numbers of strangers on their friends lists grew into the hundreds and thousands, Vicki and Eric began to run into problems. The messages began to multiply that flowed to their inboxes on the site, from both existing “friends” and those seeking to connect. Both became inundated with messages from members of the opposite sex. Vicki pointed out the number of men who sent her friend requests from countries in Africa and Central and South Asia. These men struck up conversation, though quickly getting around to asking for money, a relationship, or even, on one occasion, marriage. Other men, often black but also white, contacted her from within the U.S., including Chicago, with romantic or sexual advances. Though Eric reveled in what appeared to be a constant stream of attention from attractive women, including his now fiancée, he acknowledged that many of these accounts were probably fake. Eric was used to

other kinds of scams, such as a message from an account purporting to be a Facebook representative announcing that he had won a "Facebook lottery."

Aside from unwanted and suspicious messages and requests, Vicki and Eric both experienced a lapse in their account security. At various times, they were unable to log into their accounts, finding that their log-in information had been changed. Eric received an email from a person claiming to have "hijacked" his account, wanting to be paid to unlock it. Eric decided to abandon his account and start again. I asked both of them if they had given their login information to anyone who contacted them. They said it was possible. I observed on multiple occasions Vicki sit down at the public-access computer at the agency and be pleasantly surprised to find her account already logged in.

Amidst the deluge of unwanted and suspect advances from strangers online, Vicki and Eric developed methods and sensibilities to shield themselves. First, they used features of the site designed for these purposes. For example, Vicki "blocks" accounts of men whose friend requests she realizes she has denied many times. But the blocking feature was not enough to keep requests from some men at bay. Vicki describes how a man from Afghanistan opened several accounts under slightly different names to get around accounts she had already blocked. Vicki's solution was to start her own, second account under a slightly different spelling of her name. Doing so, she unknowingly contravened the policy Facebook has, though rarely enforces, that a user's account name must reflect what appears on their government identification.

Eric worked on his tact for outing fake profiles that contact him in the guise of romantic advances from attractive women, or otherwise women accurately representing themselves who only are interested in money from him. The clearest sign of a fake or "beggar" account for Eric is that ask for money with too much haste. Eric describes "one girl" whose friend request he

accepted, who started a conversation with him over private message. She asked what he did for a living, and he replied that he doesn't work anymore, and receives disability insurance. She asked how much he receives per month, and he told her: seven hundred dollars. She asked, "How much of that are you gonna send to me?" Eric never answered. He reflects: "I mean, I don't know how they can ask a stranger for money, right then and there. You just met 'em. You're gonna ask 'em for money? How can you do that? I don't get it. I'm not rich; I'm not giving my money. I need it."

Eric reflects then on the differences between accounts he deems as fake or "beggars" with the history of his interactions with his fiancé, Shanice. "See, if I knew 'em, it'd be a different story. Like my girl. When she need money, she won't even ask me for it. I told her, I said, 'You need to let me know, so I can send it to you.' And she said, 'Oh no...!'." He pauses for emphasis. "I sent her *200* dollars last month. Because I found out she didn't have any money. I don't know what happened to her job, or whatever. But I told her, 'Don't worry. I'll send you some more money.'. [She says,] 'You don't have to...' [Eric, replying,] 'Yes. I. Do. Don't tell me I don't *have* to. I *want* to.' [laughs]."

Casting wide nets meant, for Vicki and Eric, drawing a regular yield of unwanted advances and suspect connections in the form of friend requests. The most common requests of this kind were from strangers of the opposite sex who, either immediately or over the course of conversation, made certain requests of their participants. However, requests to connect could also be suspect – that is, Vicki and Eric would debate whether to accept them or not – from acquaintances, old friends, and family members. With time and the growth of their networks of strangers, Vicki and Eric had negative experiences that altered their approach on the site. They learned to become selective with strangers, particularly of the opposite sex, who sought to connect with them. They took advantage of features of the site designed to combat unwanted

advances. They also learned – at first out of necessity, then intentionally – to obscure their presence by acting outside the proscriptions of the site for how its users are to represent themselves relative to their official identity.

Another sensibility that Eric relies on to determine the legitimacy of accounts poising as attractive women involves checking whether the requestor shares any of his existing connections. The website displays this information under new friend requests through as "mutual friends" feature of Facebook indicates. Yet his method of distinguishing between accounts that are fake and not based on the presence of mutual friends is not foolproof. One day Eric holds out his phone to show me a friend request he had received that morning. The profile picture featured a scantily dressed woman; her posts featured only "selfies" of the woman in a bikini on the beach, with text below the image reading "missing you." Though Eric suspected the account was fake, he noticed that one of his friends from the neighborhood had become friends with the account. Seeing this, Eric clicked to accept. Navigating to the account myself later, I found the account to share the many of the other features of fake accounts. I suspect Eric's friend from the neighborhood had also fallen for the fake account.

Keeping a Low (and No) Profile: Leticia and Paul

Unlike Vicki and Eric, other low-income, unstably housed residents of Waterside approach Facebook with significant hesitation. I describe how Leticia and Paul approach Facebook based on their experiences with neighborhood violence and online harassment. Despite their hesitations to participate on Facebook, Leticia and Paul share a sense that expanding their social reach on the site could benefit their housing and financial situation. I compare their

attitudes and practices with those of Vicki and Eric in the discussion that follows, drawing out concepts of "connective ambition" and "creative caution."

Leticia is a black woman in her late 40s who lives in an affordable housing development in Waterside. Stout with inquisitive eyes and a quiet demeanor, Leticia is a regular participant in discussion and writings groups at the People First agency. She grew up in a mostly black neighborhood west of downtown Chicago. Leticia became homeless after her release from jail for her role in a physical altercation in that same neighborhood, an event she cares not to speak much about. After her release in 2012, she stayed her limit in several women's shelters downtown before being accepted into a women's public housing facility in Waterside. Since her release, Leticia has been fastidious in her reporting to the welfare bureaucracy. She approaches me in the neighborhood library one day to show me form after form of applications and renewals she manages to receive her benefits. She relies on public aid for her housing, healthcare, bus fare, groceries, spending cash, and cell phone service.

Leticia goes to great ends to keep her real name private except when necessary. She has been offered interviews by local newspapers and online publications to tell her life story. She has refused except in cases when she is able to be identified only by her initials. Leticia explains to me that this is to avoid being found by the men involved in the altercation that led to her arrest and imprisonment. "Gang bangers," she calls them. She used the same word to describe the people who she says like to hang out on the steps in front of her residence. It's against the rules, she says. "People, they aren't livin' in line like they're supposed to. And I don't want no... ignorant person coming at me... destroying my life."

With this perspective, Leticia limits sharing details about her identity and whereabouts to those people and institutions whom she feels absolutely needs them. She makes a few weekly

calls to her sister and aunt and enjoys the occasional conversation with women in the community room of her residence. Strangers are largely off limits. Leticia recalls a course she took through a mental health nonprofit on “social skills.” The course taught about “boundaries with other people.” The attendees were taught to avoid divulging too much about themselves to people they did not know. Leticia gives the example of someone who has just sat down next to you on the bus. “They don’t know you—why are they asking you all these questions?” Leticia recalls, as the lesson. Leticia took the class twice.

Leticia opened a Facebook account soon after her release from jail, at the suggestion of a woman at the same shelter where she was staying. Leticia is weary of the site. It is not her practice to “broadcast” her information to strangers. As a passive participant, though, Leticia appreciates seeing updates on the lives of her family and friends. "I just wanted to open [an account]. I'm glad that I did. I get to see people, even if I'm not in touch with them." Leticia elaborates on the pleasure of keeping up with people in this way: "It's their current, updated pictures. Of something about them. It's letting me know how they're doing. Like, my cousin, his daughter. He had posted a picture of her. I was like, 'That's his daughter!' Like, I saw her when she was a baby. And she's grown up. She's older now. I get a chance to see her, even though I don't see him. And that makes me feel good, like, in touch. I don't keep in touch with all my family members.”

Leticia goes to great lengths to limit her presence on Facebook while retaining the ability to see updates from family in friends. We browse her account one day on a computer at the agency. Leticia’s account is largely bare. She has added no photos, including no profile picture. The only posts on her timeline are those automatically generated by the site: an announcement of

her birth, a post saying she has changed her banner image, a stock photo of a flower, and, a string of posts announcing her progress in an online casino game connected to the site.

I am surprised to learn that Leticia has only one friend on the site, her sister. Leticia says she accidentally accepted the invitation and did not know how to remove it. She decided to maintain a connection on the site with her sister. I recall the comments of Abigail, an Asian-American woman living in a women's shelter in the neighborhood. She added few friends to her Facebook account outside of a small circle of close acquaintances. This was because, Abigail told me, she did not know how to "delete" friends she had added. It was important that she was prepared to do so if she connected with people she did not already trust and know well.

Like all other users, Leticia receives a steady flow of "friend suggestions" from the site. They arrive in her email inbox and are displayed in a banner on her account page. It is through these algorithmically curated suggestions that Leticia engages—and avoids engagement—with others on the site. Leticia clicks on the occasional account of someone she knows offline, browsing their photos and reacting with pleasure at announcements or pregnancies, engagements, and new jobs, without commenting, liking, or interacting at all. An equal amount of her time is dedicated to clicking the small "x" to delete the suggestions of people who she says she does not know. As she deletes pictures of people she does not know, more are generated. Sitting next to her as she does this one day, I point to a photo of a man holding what appears to be a handgun before his face. Leticia quickly clicks to delete it. "People post the craziest stuff," she says. Seeing another account, Leticia lights up. The man is another client of the agency, a white man who is sitting across the room. "See! It just feels good to see they're here," Leticia says. She leaves the man's account in the list and moves on.

Leticia navigates to her account's privacy settings, interested in my help. She wanted to know where to "make things private and public" on her account. She considers the option of who can send her friend requests. She switches it from the default of "Everyone" to "Friends of Friends." "Uh uh! I don't want nobody contacting me!" she says, narrating her choice. Then, she reconsiders, and changes the option to allow "Everyone" to send her requests again. "That way I can see who is trying to get ahold of me," Leticia says. She goes on, reasoning aloud, "You gotta stay contactable. Don't wanna close yourself off all the way. 'Cause this is a good way to find people, right? A free way to find people." Leticia sits for a moment, scrolling up and down aimlessly on the page. "Like, if, who knows, someone coulda struck it rich! Like an old classmate." The idea appears to tickle her. "And they could give me some muh-nay!" Like the casino games that take up a good portion of her time on the site, Leticia figures that keeping herself present *enough* on Facebook – a site that might expose her to both gangbangers and old friends who have struck it rich – is a gamble she is willing to take.

While Leticia cautions her way through minimal participation on the site, Paul, another client of the agency, has sworn off Facebook. Tall, thin, and with high-prescription glasses, Paul chain-smokes cheap cigarettes whenever we get together to talk at cafes or park benches. A white man in his early 50s, Paul has been homeless for two years, ever since he was laid off from his job in IT. Though he has a degree and decades of experience in IT, it seems the glut of younger graduates in computer science are making his application, now with a two-year gap in employment, appear stale to potential employers. Until recently, Paul stayed at the same low-rent men's hotel as Eric, where he complained about the one dingy bathroom that served an entire floor of residents. The hotel has been sold to developers, who are planning high-end lofts. Now kicked out, Paul sleeps in a park on the lakefront or, as the weather turns cold, on the "El" train.

Paul deleted his Facebook account a decade ago. The exposure that the site gave him to old friends and family turned sour when certain among his high school classmates began posting to his wall and mentioning him in comments. Paul's left-leaning politics had made him, he says, the target of right-wing acquaintances who used Facebook to restart a campaign of bullying they began decades ago in high school.

Yet Paul considers it "inevitable" that he will have to re-open a Facebook account. Though a GoFundMe campaign he pursued showed some early success, donations quickly trickled to a standstill. Paul knows he needs to get the word out on social media. One can view his substantial IT experience on his LinkedIn page, though Paul sees it as disastrous were potential employers to learn that he is homeless. Facebook looms large as an opportunity to spread the word on his "situation". Yet, the prospect of being targeted once again by politically motivated, online bullies is enough to keep him off, for now. After all, Paul reasons, if his right-wing friends berated him for supporting Obama while he was gainfully employed, if they learn he is jobless and without a roof over his head, Paul expects they will "berate" and "demean him endlessly."

Paul imagines a possible workaround, however. He could tweak his account name in order to prevent people from finding his account. Whereas in his first account, he used a middle initial that made his name more distinct on the site, this time he might drop the initial, and go with just his more common first and last name. In this way, he could, he imagines, avoid detection, at least for enough time to raise some money and get into an apartment of his own. Then, if or when the bullies arrived back on his wall, beneath his posts, and in his inbox, he could delete the account again, escaping back into the obscurity of an offline life, fully housed.

Connective Ambition

What significance do unstably housed adults see in a technology that promises to connect them to a social world beyond their day-to-day surroundings? What factors promote and inhibit their efforts to grow social media networks that connect them to emotional and financial resources? Vicki, Eric, Leticia, and Paul approach Facebook with diverse backgrounds, expectations, and levels of digital skill. In line with research on the social media habits of college students and middle-class Americans (Ellison, Vitak, et al., 2011), unstably housed adults turn to Facebook with perceptions of both the networking benefits and privacy costs of expanding their social reach through social media. Yet, the motivation to accumulate friendship ties online and the ways of managing unwanted exposure are unique for the unstably housed adults in this research, relative to more privileged users.

To make sense of these varied experiences, I introduce the concepts of "connective ambition" and "creative caution." I define connective ambition as the co-mingling of personal goals with a perception of the power derived from accumulating ties on social media. Facebook is not only a way to keep in touch and check the news; by making the right (and right number of) connections on the site, my participants felt they might also come about the funds to escape abject poverty.

Connective ambition takes more and less abstract forms among my participants. In its most abstract form, it is the sense that by merely having an account on Facebook, one remains open to the chance that a connection on the site will swoop in and provide the resources necessary to escape financial desperation. Though the hope is vague, it lingers as motivation to keep an account on the site. Though Leticia is hesitant to have a presence on Facebook for fear

of being found out by people who wish her physical harm, she perceives Facebook as a potential channel for resources through social connections. Accordingly, she keeps her account open, even changing her settings to allow friend requests, even as she denies them when they arrive.

I heard this abstract form of connective ambition from Briana, another unstably housed African American women living in Waterside. Unlike Leticia, Briana, who sleeps in a tent with her husband and two young sons in the park, *does* accept friend requests on her account, but only of people she knows. Briana is concerned with online scams, having been solicited by strangers on the site. She is proud to report that she has nearly every member of her high school graduating class as a friend on the site. Like Paul, Briana avoids broadcasting her housing situation on Facebook. She says she is "too stubborn" to ask for help directly. Yet she holds out the hope that having her old friends available through the site may somehow still connect her to their charity. "Maybe one of 'em will get in touch… and buy us a house."

Connective ambition comes in less guarded forms. Eric and Vicki hold the general sense that growing their friend counts on Facebook represents progress toward raising money and advocating for unstably housed residents of the neighborhood, including themselves. They at once lack the hesitations of Leticia and Briana to connect with strangers online. They have a willingness to identify with homelessness on their feeds. As a result, Vicki and Eric have some way of theorizing how accumulating friends on the site should support their ambitions. Eric has made Facebook friends who have donated money or supplies to the homeless encampment in the park. Vicki adds as many friends as possible and shares her ministry page with them, circumventing paying Facebook to promote the page. Finally, Paul expresses a more concerted form of connective ambition in his hypothesis that were he to broadcasting his crowdfunding campaign on Facebook, he might grow the limited success of the campaign that he currently only

pursues on the crowdfunding site. Unlike Vicki and Eric, Paul benefits from a higher level of computer literacy, gained through academic degrees in IT.

Creative Caution

In each case, my participants expressed the sense that having an account on Facebook could benefit them overcoming housing instability. The findings also show that people experiencing poverty face excessive challenges in turning their Facebook accounts into avenues for social connection and upward mobility. The experience of social stigma and violence in their offline lives is enough to keep some of them from participating on the site, despite their sense that doing so may aid their path out of dire poverty. For those who engage more actively, their participation is fraught by security breaches, scams, and unwanted advances. In order to shield themselves from threats while pursuing their goals, and relying on typically lower levels of digital skills, my participants engaged in digital habits on Facebook that distinguish them from the mainstream. I call these adaptations, such as establishing multiple accounts under different names, or limiting one's presence by accepting no friend requests, "creative caution." In calling them "creative", I distinguish these practices from uses intended by site designers. I interpret them in line with researchers who distinguish top-down technology design from the ways that technology is appropriated by users for their own purposes (Silverstone & Haddon, 1996).

The first of the tactics that I describe as creative caution is to establish multiple Facebook accounts. Vicki found that, as she added more and more friends without considering her connection to them, she began to receive more and more requests from men locating themselves in countries in the Global South, asking her to send money or even marry them. Her attempts to use the standard functions of the site were insufficient. Requests kept coming after she ignored

them, and men whom she would block would create alternative accounts and, Vicki tells me, find her again. Fed up, Vicki opened a new account under a slightly different spelling of her name. She started over, rebuilding her friend count with a new hesitancy toward pursuing strangers on the site. Eric also maintains several accounts on the site. In some instances, a new account was created due to the previous one being "hacked" by a person who obtained his log-in information. Yet Eric also divides his personas between the accounts, accepting requests from profiles appearing to be women seeking romantic connection on one account, and promoting his homeless advocacy on another.

Altering one's name on social media is another way of limiting exposure. Imagining his return to Facebook, Paul plans to obscure himself in plain sight by providing the form of his name least likely to stick out among other names on the site. Vicki spells her name differently on a new account to avoid unwanted advances, finding that ignoring and blocking are insufficient. Leticia might have chosen to obscure her name in her Facebook account, as well. She had heard of a friend who dropped a few letters from their name. She liked the idea. But as far as she knew, it was "the law" to use one's real name on Facebook. Leticia is strict about following the rules, particularly when it comes to the forms she fills out to report her financial status to government aid agencies. In this way, the desire to remain above board, informed by a reliance on government aid, hamstrings Leticia's efforts to protect herself online.

Creative caution is also on display in the emergence of mental models for determining whether to accept friend requests. Though Leticia does not accept any friend requests, she decides whether or not to "delete" requests from her inbox depending on the basic calculation of whether or not she knows the person offline. Facebook is a way for Leticia to passively keep up with people online who she knows already. Briana similarly holds a policy of not adding online

strangers to her friends list, taking it as common sense that people who approach you online are likely to be scammers. Eric and Vicki, on the other hand, are open to connecting with strangers and thus develop ways to distinguish between risky and acceptable connections. People who make little information publicly available about themselves – whether a picture or biographical information – are immediately suspect. Eric takes the presence of "mutual friends" – the display of connections that a person shares with someone requesting their friendship – as a sign of the legitimacy of an account and the desirability of connecting with it. In conversations with requesters posing as women interested in him, Eric relies on their responses to gauge their authenticity as potential romantic partners rather than scammers. Asking for money too soon alerts Eric to the potential of a scam. Offering to meet Eric in person, as his fiancé did and followed through with, is an effective signal of the requester's authenticity. Being cautious on Facebook required adapting offline sensibilities to a digital setting with diminished cues for knowing who to trust.

Skills and Stigma

Connective ambition and creative caution describe two contours of the social media approach of unstably housed adults living in Waterside. But what factors shape these approaches for unstably housed adults? Existing literature would suggest that a lack of digital literacy informs both the outsized expectations for online social networking and the atypical means to respond to privacy and security risks (Li et al., 2018). Yet the focus on skills obscures the equal influence of other factors in shaping whether people are able to secure aid during periods of crisis through social networking on SNSs.

Though not the defining factor, different levels of digital skill were influential in shaping how participants viewed and practiced social networking on Facebook. Leticia's lack of confidence in using the site informed her decision to remain a "lurker," neither producing content nor friending or interacting with others on the site. Vicki and Eric showed some ingenuity in opening secondary accounts with different spelling of their names to obscure themselves from the unwanted requests coming to their primary accounts. Yet both friended their accounts with one another, which allowed Facebook's algorithm to suggest that those connected to them on the first account, including those people they sought to avoid, connect with their new account. Similarly, Leticia managed to obscure her online presence by not establishing connections on the site, yet she outed herself by adhering to the site's stated but rarely enforced policy of signing up under one's real name. By contrast, with a degree in IT, Paul has no trouble in launching a crowdfunding campaign outside of Facebook; he also silos his digital presence knowledgably across LinkedIn and the crowdfunding site. Levels of digital skill were influential in shaping how participants viewed and practiced social networking on Facebook.

There is an equal influence of other factors shaping whether people are able to pursue social connections of material and emotional support from people they met on SNSs. In a study of people experiencing homelessness in Austin, Texas, Snow and Anderson (1993) identified eight dimensions including material, cognitive, and temporal orientations that characterized the several hundred unhoused people they met and interviewed. Among these are the material dimensions of a person's given sleeping arrangement, such as whether they slept at a shelter or on the street. The cognitive dimensions covered how people attributed blame to their situation, such as to self or others; the extent to which people took on homelessness as part of their

identity; and how and whether people talked about getting off the street. Along the temporal dimension, people differed by how long they had been homeless.

In line with Snow and Anderson's findings, my participants drew on and were shaped by their different experiences and cognitive orientations toward homelessness as they considered and pursued reaching out for support over Facebook. The stigma associated with homelessness and the willingness that people have identifying as homeless to their digital audience was an additional influence. Paul and Briana were the highest educated among those I interviewed but neither referred to being homeless on Facebook. Paul decided against opening a Facebook account to promote his crowdfunding campaign after having been harassed on a previous account by former classmates who disagree with him politically. Considering his background coming from a middle-class, politically conservative family in the suburbs, Paul felt that he would be subject to even greater harassment if he were to announce he was homeless and attempt to raise money for himself in online view of his former peers from high school. Briana did not have it in her personality to present herself as in need to her family or friends. She took pride in her online connections with old classmates and kept up with them not to ask for help, but as a way to keep up a sense of life before becoming homeless. She "liked" updates from her better-off friends and exchanged messages with them without, as far as our conversations revealed, mentioning her family's crisis.

By contrast, Eric and Vicki were not shy to identify as presently or recently homeless in their postings and associations on Facebook. Rather, they mitigated the stigma they might have felt for identifying as homeless online by taking a leadership role. Their posts and membership in Facebook groups communicated efforts to raise money and political awareness as well as minister to others experiencing homelessness like them. These efforts fostered connective

ambition – namely, the adding of thousands of friends with little discrimination as to the intentions or legitimacy of the accounts they added. The motivation to be highly connected and influential, on Facebook if not in everyday life living on and off the street, opened the door to advances by scammers and stalkers who undermined the security of Eric and Vicki's accounts. Eric and Vicki attempted to distinguish themselves through the metrics of a social networking technology designed *not* to aid people in crisis but to connect as many accounts as possible, including scammers and bots.

Conclusion

The chapter has shown how attitudes toward Facebook form among a vulnerable population of homeless and former homeless adults. The findings refer to four, in-depth cases that illustrate how the balance of opportunity and risk that researchers describe among middle-class and college-attending Americans (Ellison, Vitak, et al., 2011) takes unique significance and form among middle-aged and older adults on the socioeconomic margins. There is a perception of Facebook as a gateway to social connection beyond the neighborhood, one which gets tied up in ideas of getting off the street. Connective ambition is a way of imagining upward mobility through the metrics of social networking technology – from having a presence at all on a platform to the number of connections one accumulates. Learning to manage one's exposure while pursuing broad reach in a networked public involves cobbling together technical and cognitive strategies without the support of a strong educational background. A class and educational background of the kind that is associated with greater digital literacy may inhibit those who have that background from reaching out for help from their networks through social networking technology. An inability to translate a social media account into a technology of

support during crisis may be driven not only by a lack of digital skills but also by reputational concerns.

The chapter offers insights for interventions. Social media platforms are a novel arena of risk for vulnerable populations, such as the unstably housed, who could benefit the most from online networks of material and emotional support. Digital literacy programs should be supported at libraries and nonprofits focusing particularly on SNSs. Skills in detecting fraudulent and scam accounts on Facebook, and how to use site controls to block them, should be a priority. The ability to manage one's identity across accounts and platforms should be an additional focus. People in crisis will benefit from the opportunity to successfully silo their presence across sites like GoFundMe, Facebook, and LinkedIn. In this way, people experiencing homelessness might raise money to get off the street on one site without sacrificing their ability to network for jobs and project an image of the life to which they aspire.

Finally, the research in this chapter suggests that aspects of platform designs intended to promote authenticity and openness can work against the efforts of vulnerable users to protect their identity and security. Facebook's "real-name" and one-account policies are barriers for the participation of people who seek to obscure their name from public view to avoid stigma or detection by those who wish them harm. These policies connecting accounts to single, identifiable individuals are regularly circumvented, by users who change the spellings of their name and open multiple accounts to mitigate their exposure, and by the operators of over a billion fake and scam accounts (Wagner & Mola, 2018). Meanwhile, vulnerable users like Leticia who identify as themselves out of fear of sanction miss the opportunity to obscure their identities in a way that would allow them to participate more fully on the site. Platform designers must grapple with the informal and creative means that users will pursue to protect themselves

from unwanted advances online. Designs might look to non-public means of verifying identities, to distinguish between fake and authentic account while allowing vulnerable users a means to manage their exposure while still participating in the opportunities of a networked public.

Conclusion

Urban Digital Inequality: Adversity and Adaptation in the Network Society

Information and communication technologies are not new to the lives of people living in poverty in U.S. cities, nor to the local and national institutions that aim to serve them. Concerns over digital opportunities for members of poor communities extends back several decades. Microsoft founder Bill Gates described with pride his visits to libraries around the U.S. where grant money from the Gates Foundation had provided computers for people to "do anything from look for a job to research a term paper." "Witnessing the empowerment this technology has given people," Gates commented, "underscores my belief that computers can really make a difference in the lives of others" (Bill and Melinda Gates Foundation, 1997).

I was reminded of the decades-long history of "high technology and low-income communities" (Schön, Sanyal, & Mitchell, 1999) when I was at the People First office one day, browsing old print photographs of the agency in its former offices in downtown Chicago, circa 1999. This was the same year the NTIA first included "digital divide" in the title of its annual report on telecommunications access (National Telecommunications and Information Administration, 1999). There in the photograph, in the community room of the agency's old offices, sat three large, beige-colored plastic machines with convex glass screens. In an old news article from around the same time, a former People First director lauded the presence of the computers as a means of "email and job applications" for agency clients.

Though computers and the internet are not new to people living in poverty in the U.S., including those in Chicago, digital technologies have come to mediate social, economic, and political life in ways that make early predictions of a largely unidirectional and positive effect of

technology on the "empowerment" of marginalized populations appear quaint (e.g., Gates, Myhrvold, & Rinearson, 1996). Subsequent scholarship predicted and began to show empirically a different picture. As quickly as new technologies and new uses of technology emerged, so did the potential for gaps to emerge in who had access to them, who had the skills to use them, and who was disposed to using them in ways more likely to improve or worsen life conditions (Castells, 1996; DiMaggio et al., 2004b; Norris, 2001).

In this research, I have focused on the social and technological milieu of a loose-knit group of middle-aged adults living below the poverty line and at risk of homelessness in north side Chicago. Over the course of fieldwork, I observed how technology issues emerged in the broader context of the material and social needs facing people on the economic margins of urban life. In concluding this research, I would like to review how technology emerged as a barrier and bridge as my participants sought to secure a broader set of material, social, and emotional needs. Following this, I would like to propose three advances to the study of digital inequality.

Digital Technology and the Pursuit of Physical and Emotional Needs

The people I learned from lived lives in which fulfilling basic needs – both material and emotional – is a daily endeavor. Basic material needs include housing, like for Eric, Paul, and Briana and her family, whom I would interview in the mornings after they had packed up their belongings from off park benches and out of stuffy shelter rooms. The people I learned from in Waterside found housing through the support of state and nonprofit institutions and it could be found through who you knew: family, friends, and even strangers, the latter often in the same situation of homelessness (see Desmond, 2012). Housing secured, there were those who continued to rely on charities and friends for a warm meal in the evening and warm coats in the

winter, people like Abigail and Marco and Mack. I discussed in Chapters 3 and 4 the role of institutions, government aid, and other people in meeting basic needs of access to a mobile phone and internet connection. Increasingly, as I discuss in Chapter 5, my participants looked to SNSs like Facebook as a way to circumvent the limitation of their existing networks and tap into the "wider world" of potentially well-resourced connections online.

In addition to basic material needs, there were social and emotional needs that carried through housing situations, situations of hunger, and any number of replaced mobile phones. My participants spoke often of their families: siblings and parents and children and cousins who lived across the city or across the country. My participants spoke of responsibilities they intended to uphold for their sisters and brothers and children and grandchildren when "things improved" for them in the state of their housing and income. Family relationships continued to provide a sense of responsibility and point of pride, as when sharing a picture of a sibling or a report of a daughter's graduation. As I discuss in Chapter 3, keeping in touch with family was often hard, logistically, as phones broke down and social media passwords were forgotten. More often, it was difficult to maintain ties with family emotionally, an artifact of homelessness observed extensively elsewhere (Bourgois & Schonberg, 2009; Desmond, 2016; Hopper, 2014).

In addition to family, and in many ways in place of close family ties, friends provided an important source of emotional support for my participants. The pull of friendship was palpable among those that survived homelessness together. Friendship kept people coming back to the park and to nonprofits like People First, even after they had found a place to live and an income to support them. I met many throughout my fieldwork who secured housing in the South or West side but had not found friends there. They returned to the park in Waterside, in the North, to take walks and share a to-go meal with the people they had come to know when living in second-hand

tents in previous winters. As I discuss in Chapter 5, they also turned to indoor public spaces and to public-access computers, like at People First, where they could pass time singing and dancing and sharing Facebook posts with their friends around them.

There were also needs for romance and intimacy. Most of them single, my participants navigated needs for intimacy as people in their late-middle age living without careers, cars, or their own homes, key markers of identity and pride in U.S. culture (Snow & Anderson, 1993). The challenges of intimacy among people experiencing homelessness similarly receives treatment elsewhere (Bourgois & Schonberg, 2009; Hopper, 2014; Snow & Anderson, 1993). Perhaps in response to the challenge of finding and maintaining intimate relationships in the shared context of homelessness, my participants, as I discuss in Chapter 5, again turned to SNSs as an alternative. Pursuing intimacy over Facebook meant learning to manage a deluge of potential fakes and scammers whose friend requests arrived in my participants' inboxes. Year by year, Vicki and Eric entertained and screened out hundreds (perhaps thousands) of online accounts posing as interested parties. Overwhelmed by the incessant and increasingly unwanted attention of online male strangers from around the world, Vicki ended up taking more interest in men who approached her in her involvements at churches and nonprofits around the neighborhood, though never settled into a relationship. Eric, however, gained a fiancé from another state after a courtship over Facebook. In the final months of my research, he proudly announced his engagement on the website, to a chorus of likes and comments from Facebook friends in Chicago and beyond.

Future Research on Digital Urban Inequality

The dissertation advances several arguments that contribute to our understanding of how digital inequality takes shape for unstably housed adults in a major American city. There are three ways that living poor in a major U.S. city shapes how aging adults relate to digital technologies based on the findings from my fieldwork. First, maintaining basic level of access to technology becomes a social rather than individual accomplishment. For the unstably housed, we should look more closely at the role of acquaintances and strangers in the provision of support. Second, the place where one goes online shapes the meaning one gets out of internet use. For the unstably housed and the broader population who cannot afford internet access at home, we should expand our understanding of what public access is meant for and how sites of access shape social interactions around technology. Third, the outcomes that emerge from attempts to leverage the internet are reflective of the offline context of use.

Beyond Close Ties: Staying Connected through Strangers and Acquaintances

The first contribution is to explore the role of people other than family and other strong ties (M. S. Granovetter, 1973; Lin, 2001) in supporting everyday technology access for members of low-income communities. This contribution focuses on the particular situation of mobile phone access. Existing research identifies social support as a key variable in supporting technology access and use (Courtois & Verdegem, 2016; DiMaggio et al., 2004a; V. S. Katz et al., 2018). Yet, digital inequality research can benefit from considering a wider range of potential sources of social support. In the sociological study of social support, while family was once central to accounting for how members of poor communities survived, increasingly sociologists are pointing to other sources. People experiencing homelessness find support from acquaintances and strangers, in place of or in addition to family and already close friends (Desmond, 2012). In

Desmond's (2012, 2016) research, people facing eviction in another midwestern city, Milwaukee, made roommates out of new acquaintances, moving in together to afford rent as their respective family members chose to keep their distance.

In my research in Chicago, the unstably housed residents of Waterside similarly often lacked family to call upon for material support. Instead, they found a way to make a call or to log into their Facebook accounts using the mobile phones of people with whom they were only barely acquainted, if at all. I observed these encounters between acquaintances or strangers at People First. Indeed, the practice of sharing phones – and the desire to avoid using one's primary personal phone to do so – was so common as to emerge as an axiom in street wisdom: "You gotta keep two phones on you." Building on sociological research in these areas, I found that the tendency of people experiencing homelessness to rely on empathetic strangers extends from housing needs to technology needs.

There are both academic and political stakes for understanding the role of acquaintances and strangers in supportive practices related to technology access. These become clear in the example of phone accumulation. As I argue in Chapter 3, the possession of multiple phones by people with few other possessions is a response, in part, to the responsibility that people feel to help acquaintances and strangers in need of phone access. As payphones were removed from public settings, "government phones" took their place and began to sustain the needs of members of low-income urban communities.

These findings shift our approach to answering the question: How do members of these communities meet the demands to be perpetually connected in a society mediated by digital technology (Castells, 1996; James Everett Katz & Aakhus, 2004)? To advance our understanding of the role of social ties in supporting technology access, scholars need to account for

interactions among strangers in public settings as well those among families at home or colleagues in the workplace, survey studies have emphasized (Courtois & Verdegem, 2016; V. S. Katz et al., 2018). Cooperating with strangers and near-strangers to stay connected to a mobile phone does not ultimately overcome the inequality of access that emerges from a lack of stable incomes and housing. Yet, understanding how people attempt to overcome "dependable instability" of technology access (A. Gonzales, 2016) in ways we might not expect, can inform how we construct surveys and evaluate the success of interventions to promote technology access. In this vein, lawmakers as well as scholars should be attuned to how public resources – in this case, phones subsidized by federal funds – might be shared and exchanged among people who seek to spread their benefits to the community.

Mediation by Place: Institutional Context and Outcomes of Technology Use

The support that community institutions provides for technology access is closely connected to the support that is available among strangers and acquaintances. In the case of mobile phone access, however, I only observed institutions providing the physical context for supportive exchanges among people experiencing homelessness. Where I want to emphasize the role of community institutions is in the settings that they provide for different interactions around technology.

The second contribution of the dissertation thus shifts our focus to the institutional network of public and private community organizations providing internet access to low-income communities in a large U.S. city. In the U.S., the homeless have always been left to occupy marginal urban spaces, as "prime" spaces like cafes and public squares are policed for the presence of unwanted types, of which the homeless are one (Bourgois & Schonberg, 2009; Snow

& Anderson, 1993). Increasingly, like others living through the transition to a network society, the homeless are seeking out places where they can meet their technological needs, in addition to the needs for sleep, hygiene, and refuge from the elements (Duneier, 1999; Snow & Anderson, 1993). The nonprofit sector, including public library systems and private social service agencies, is a primary source for the kinds of resources – including a safe indoor setting in which to pass time – that the free market fails to provide for low-income and other marginalized communities. Technological resources from computers to wi-fi to charging outlets to digital assistance are increasingly part of the repertoire of nonprofit organizations in their service to marginalized communities (Horrigan, 2015; Servon & Nelson, 2001).

There is something new and newly significant in the provision of technological resources by nonprofits operating within urban landscapes that are more broadly hostile to the presence of the poor, people of color, and sexual and other minorities. As I identified in Chapter 4, these organizations struggle to define their mission while managing limited resources with high demand for their services. As it relates to the uses of digital media in nonprofit settings, my analysis of two community access sites advocates for the view which takes leisure and entertainment as co-equal with education and economic productivity. That is, people who are marginalized from urban spaces more broadly lack spaces in which to bend their use of digital media toward bonding opportunities with co-present others. Watching music videos together facilitates the kinds of interpersonal bonds of conviviality (Simmel, 1949) that tends to elide the otherwise productive and necessary tasks of applying for jobs and renewing applications for government aid.

The opportunities for greater understanding apply both to researchers of the urban nature of digital inequality and to practitioners and advocates of low-income technology access. If we

are interested in the layers of inequality that emerge from access, skills and uses, and outcomes of use, we should ask not only how people get online and what they do online, but also where they are and who is around while they search jobs online, browse social media, learn something new on YouTube, or use the same site to revisit an old song from their youth. Dimaggio and colleagues (2004) as well as Hassani (2006) were interested in the "autonomy" of internet use as a factor in shaping who was better positioned in the era of ICTs. Autonomy referred to being able to use the internet as one wishes based on a variety of locations at which to go online.

For practitioners and scholars alike, it is worth acknowledging the range of more and less autonomous access situations are possible for internet users even for on the economic margins who rely on public means of access. Compared to the middle-class resident of Chicago, Gloria, Vicki, Marco, Abigail, and others in my study who relied on computers at libraries and nonprofits to go online, enjoyed very little autonomy in the location of their access: they could choose between the public library and a few social service agencies in the area where they lived. And yet, people in search of "social uses" (Lull, 1980) of public computers could meet their needs in an environment where the internet was not primarily viewed as an instrumental technology (Sandvig, 2003). The challenge is to understand how to facilitate sociability among marginalized urban residents within a broader set of urban spaces of internet access – including settings with wi-fi availability, such as cafes (K. N. Hampton, Livio, & Sessions Goulet, 2010). My findings from Waterside, Chicago, suggest that we should expect and account for media uses that are noisy and involve other people. Understanding these uses of technology in public settings – rather than firstly policing them while assigning productive uses of technology – better aligns with the goal of social inclusion with the aid of technology (Buré, 2006; Warschauer, 2004).

Institutions and everyday acquaintances buttress the technology needs of the unstably housed adults of Waterside Chicago in ways that current examinations of digital inequality may not capture. Turning to what people do with social media out of contexts of urban poverty, we might as well expect to find attitudes and habits that diverge from existing studies of online social networking, which are based primarily in studies of college students and the middle class. The third contribution of this dissertation is to show how offline inequality is reproduced in the online setting of social network sites.

One way forward for scholars of social media and marginalization is to acknowledge that, as I learned from my participants, the same online site or platform presents itself differently in the minds of people who have different experiences and motivations coming out of situations of poverty. For some, the wisdom transfers online that was learned on the street, namely, to minimize socializing with people one does not already know and trust. As with Leticia's experience, many will never start an online fundraiser out of concerns for keeping a "low profile." Meanwhile, Eric revels in the attention from online strangers, primarily attention from women, and at times communicates little concern over who gains access to him through his Facebook account. We should wonder how the experiences of African American women, as with Leticia, and white men, as with Eric, compare. Gender and race shape trajectories of homelessness and experiences of the "street" (E. Anderson, 1999; Duneier, 1999; Hopper, 2014; Snow & Anderson, 1993) and the "digital street" (Lane, 2019; Patton et al., 2016). How these

different experiences influence people's approaches to casting "wide nets" or keeping "low profiles" online deserves future consideration.

Adapting to Adversity in the Network Society

These findings accord with the call for a "community and city" (V. S. Katz & Hampton, 2016) approach to studying communication and digital technology. The aim is to identify additional dynamics beyond an individual's socioeconomic position in shaping how people relate to technology and what uses of technology they pursue according to their own definitions of "meaningful" connectivity (V. S. Katz & Gonzalez, 2016). The approach would place individuals in the context of the set of close ties that matter to them, such as the family (V. S. Katz et al., 2018) and in the context of urban ecosystems, including the economic divisions that accord more and less resources to different urban neighborhoods (K. N. Hampton, 2010; Lane, 2019). In this dissertation, I have shown how a broader range of ties and local institutions shape the digital inclusion of unstably housed adults.

The responsibility of community-minded digital scholars is to continue returning to the everyday lives of people who manage life in U.S. cities – and elsewhere – without stable guarantee of housing, income, or other basic needs. This dissertation has sought to expand our analysis of digital inequality and our perspective on technology and poverty to recognize practices and states of mind that do not always fit easily into existing frameworks and policy analysis. As development theorist Amartya Sen (1999) writes, "The usefulness of wealth lies in the things that it allows us to do – the substantive freedoms it helps us achieve" (14). As certain gaps close and other expand in access and use of ICTs, it will be important to focus on what people choose to do with technology and why they value what they do with it.

For the unstably housed adults of Waterside that I learned from, the value of technology was often in reflecting the values one already held: caring for strangers, enjoying oneself despite the conditions, and helping others in need. The implications of technology were not always so benign or driven by a concern for community: technology could also alienate under the guise of community, as with all the effort Eric and Vicki spent making sense of endless friend requests from dubious online strangers. In both cases, research that starts in the community and with the myriad concerns of everyday life may be best situated to draw out the relationships between people in poverty and digital technologies, even as social life and technologies continue to evolve. To understand digital inequality, the argument of this research thus goes, requires an attention to local environments and their particular organization of social life. *Urban* digital inequality is the acknowledgement of how a particular urban place shapes how people in poverty manage in a society increasingly mediated through digital devices and networks.

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Appendix

Methodological Reflection: Doing Ethnography with People Experiencing Homelessness in the Digital Age

Conducting ethnographic research with people experiencing homelessness is no easy task. Ethnography asks of its practitioners that they work their way into a social setting and, to a degree and for some time, experience life alongside the people within it (Hammersley & Atkinson, 2007; J. Lofland et al., 2006). Doing so requires that at least some of the people within the setting welcome us and trust us enough to let us in on their thoughts. It requires that we gain some comfort with the site in order to be able to come back to hang out, again and again. For the study of people living on and off the street, ethnography means wading into social environments where trust may not easily be granted. Field sites can be highly public and subject to policing and inclement weather. Research relationships may also be less reliable than in studies with housed people. The precarity of people's lives when they are homeless is likely to interrupt data collection and halt budding relationships in their tracks.

In this reflection, I add to my discussion of methods in Chapter 2 with the hopes of distilling some advice for other ethnographers of hard-to-reach populations, reflecting on my experience studying homelessness in Chicago as a graduate student. How does a researcher meet people living on and off the street? How do you gain people's trust and broach the subject of research? How do you collect observational data over the long term with a population likely to drop in and out of your physical reach? And what might the rise of social media and smartphones mean for approaching these challenges, as tools and virtual research sites unavailable to ethnographers in earlier decades?

The former challenges – getting into a field site, gaining trust, collecting data – are the subject of numerous writings to which the reader should also turn (e.g., Hammersley & Atkinson, 2007; Lofland, Snow, Anderson, & Lofland, 2006). There are discussions of method in influential ethnographies on homelessness (e.g., Desmond, 2016; Snow & Anderson, 1993). What I propose to add is two-fold. First, I highlight my naivete as well as what I see as my accomplishments as a starting ethnographer of homelessness. Other beginner ethnographers should feel encouraged from my mistakes and be prepared to learn from their own. Second, I hope my reflections can elucidate the digital potential for ethnography with hard-to-reach populations, including people living on and off the street. Many are surprised to learn that the homeless also have smartphones and social media accounts (Guadagno, Muscanell, & Pollio, 2013). What might this mean for our ethnographies? For example, could we reach out to this hard-to-reach population first online? Could we maintain virtual contact when out of physical reach with our participants? What would it mean for our relationships and our data, for the stories we tell about homelessness, and the people who experience it?

The organization of this reflection follows the development of my fieldwork over three years of graduate study. I learned early on that approaching people first on street corners was an uphill battle and that I would benefit from a more structured environment in which to get to know people experiencing homelessness and develop my approach to building relationships with people in their situation. I describe the lessons of pacing my approach and developing trust with respected members of the scene, lessons I learned over the year I spent visiting the nonprofit I call People First, a social services agency on Chicago's north side. The lessons followed me as I expanded my field site beyond the agency and into the neighborhood where the agency is located, which I call Waterside. Around the neighborhood, I learned to be consistent in my

presence in the field and to mix up my observations to include a variety of public spaces, from parks to cafes to libraries and beneath bridges. Throughout, I was testing out and learning lessons on the role of smartphones and social media for collecting data and keeping up with my participants, which is the subject of my final section in this reflection.

Though this appendix is a reflection on the method more than the substance of my scholarship, a brief note is in order on the research questions that animated my research and how they developed. As is common to ethnographic projects, I entered the field with broad interests in my keywords: the Internet, smartphones, and urban poverty and inequality. As time went on observing people's daily lives with these keywords in mind, I began to consider what themes were developing in my field notes. I focused on two areas of inquiry. First, I wanted to know the role of smartphones in digital inequality: that is, are smartphones alleviating or reproducing the disadvantages that low-income and minority communities experience in their attempts to access and take advantage of the Internet (Marler, 2018, 2019)? Second, I wondered how social network sites such as Facebook influence social support provision among members of disadvantaged urban communities, particularly during period of homelessness. I adjusted my subsequent observations and interviews to explore the related dynamics better. This kind of iterative research approach – adjusting observation to theory and vice versa – is called grounded theory and is common to qualitative research (Charmaz, 2006; Glaser & Strauss, 1967).

Now onto the task at hand. If I have done my job in this chapter, aspiring ethnographers will have lost some of the hesitations they had when they started reading. They will look away with an appreciation for the productive challenges of ethnographic research on homelessness in the digital age. And they will be ready to enter the field, make their own mistakes, and pass on what they have learned to the crop of aspiring ethnographers that follow.

On the Corner

Not every first idea is the right one. By sharing how my ethnography got off to a false start, I intend to illustrate that there are advantages to finding a field site through different tacks. Particularly for research with disadvantaged populations, there may be lessons in failed attempts to enter the field.

It was my first year in the Ph.D. program and I was enrolled in a seminar on field methods. Our assignment was to find a field site where we could observe and conduct interviews. I wanted to learn how people living on the streets in Chicago appealed to one another and the public for aid, in physical spaces and online. It made sense to me to start with people who were asking for help in the most public of urban spaces. As a young white man of upper-middle-class background, I expected that trust would develop slowly between myself and those among the urban poor I could meet on street corners, particularly African Americans. Yet, I knew of white researchers who had been successful in developing trusting relationships in such a way (e.g., Desmond, 2016; Duneier, 1999; Liebow, 1967).

With this in mind, I approached two people who were asking for change on different street corners in the city. The inner-city street corner is generally a male-dominated space (E. Anderson, 1999). As such, I ended up interacting with men in these exploratory interviews. On both occasions, I dropped a dollar into the man's cup and asked if him if he would answer a few of my questions. One of these encounters took place close to a university campus. The man was black and thick-set, and sat on a stack of milk crates. He responded to my request with a shake of his head. "Another one of these? … Alright, let's do it." He agreed to let me record the interview on my phone, and neither of us mentioned payment. The man told me he often got students

approaching him for interviews. Though we talked for half an hour, the conversation felt scripted. I approached another man asking for change on a street corner, this one downtown. White and younger, with an unshaven face, the man held out a cup from behind a cardboard sign. He responded briefly to a few of my questions about the traffic on his corner, but quickly closed up when my inquiries turned personal. The street corner was busy and I was standing while the man sat. The scenario felt awkward and overly public. Not wanting to draw additional attention, I kept my notebook in my bag, remembering what I could to paraphrase later (see Emerson, Fretz, & Shaw, 2011, Chapter 2, on taking notes in challenging field situations). I thanked the man and left shortly after.

Neither interview left me feeling confident that I would learn much from approaching people I did not know on the highly public setting of the street corner. I did not have the fortuitous prop of one prominent sociologist of the street corner, Mitch Duneier, who introduced himself to a book peddler by pointing out his own publication was among those being sold (Duneier, 1999). Neither did I have someone to vouch for me who knew the man on the corner, as Duneier had. This is not to say that a research relationship could not have developed in other ways, had I continued to visit and find ways to make the situations less awkward. I could have offered to buy the men on the corners a coffee somewhere in the neighborhood. I could have returned day after day, showing myself to be dedicated. In the end, though, I turned my efforts to a site that could provide more structure for my efforts to get to know people struggling to keep shelter over their heads.

At the Agency

Shortly after my attempts to interview men on street corners, I contacted the agency I call People First to ask permission to hang out at their office. In this section, I describe how I took advantage of the relatively structured environment of this nonprofit social services agency to learn how to engage with people who are unstably housed. Over a year of visiting the agency once or twice a week, I learned how to pace my approach and minimize the degree to which I stuck out. I found that developing rapport with respected members of the unstably housed community could lead others to trust me as well. These lessons would follow me as I expanded my field site to include a public park in the neighborhood where unhoused people gathered. Further, learning to gain trust through in-person interactions would provide the basis for reflecting on how to incorporate digital methods into my research.

When I first came into contact with People First – and even more when I visited – the agency stuck out to me as a promising field site. I had learned of the agency through a program connecting unemployed clients to community members to develop job skills. I learned the agency had a waiting room resembling a lounge where clients and visitors could enjoy a free meal and spend some time off the street. In this sense, the agency was – and remains – a site not only for social services and job programs, but for people experiencing homelessness to hang out and socialize. Most of the clients and visitors are African American and in their 50s or 60s, though in the lounge there is often a mix of black and white visitors, with fewer Hispanic and Asian-Americans present. A quarter of clients are unhoused and a majority of those remaining are in subsidized housing. They are generally unemployed or underemployed and are supported by government assistance for one or more of housing, healthcare, food, transportation, and cell phone service. The agency made sense as a site in which to study homelessness in the digital age. People coming in off the street could use one of the six computers the agency made available in

the lounge. The outlets available in the lounge were reason enough for many people to visit the office: as I would learn, people without stable housing are constantly in search of places to charge their phones.

Before visiting the agency, I sent an email to the executive director expressing my interest in conducting interviews and observations. She responded favorably and invited me to attend an upcoming meeting of staff and clients. After receiving approval from my university's Institutional Review Board for human subjects research, I visited the agency and introduced myself at the meeting, attended by the agency staff and around 20 of the agency's clients. I described in broad strokes my interest in poverty and communication and my intention to gather stories and perspectives from people willing to offer them. The audience offered me a polite applause and the meeting concluded. I milled about the room and introduced myself to clients of the agency as they prepared to leave, gathering up their grocery bags and stacks of winter clothing. Some politely declined to talk. Others were receptive, and shared bits of their stories. I took out my notebook and wrote down in shorthand some of what I was hearing (called "jottings") to flesh out later (see Emerson et al., 2011). I noticed I was getting more responses from white clients than black, in line with the experiences of other white researchers who have worked to gain trust with low-income African-Americans in the inner-city (e.g., Stack, 1975). I also found women to be generally more receptive than men on this first occasion. I suspect that the street codes of masculinity made men more hesitant than women to speak to a male stranger (and a nosy one at that) (E. Anderson, 1999). The room cleared out and I sat in a quiet corner to flesh out my notes from the first day in the field. The feeling was exhilarating: I was in.

I began visiting People First a few times a week. Over the first month, I approached people as I had the day I announced myself at the meeting. I started by introducing myself to

people I found hanging around the waiting room and mentioning my research. Would they answer some questions of mine about their experiences with being homeless? The approach was fruitful, on occasion. Again, I found that white clients were most willing to talk. Particularly when approaching black men coming in off the street, I sensed that my approach put them off. Something felt too direct. Responses I did get felt stiff. Across the diversity of people with whom I spoke, I began to feel I was an additional burden on their already tiresome day. Most of these interviews ended shortly after they started, with little interesting written in my notebook upon which to reflect.

To illustrate what I mean, consider an exchange I had early on in my research with someone who later became a more active participant in my study. Rodney is a middle-aged black man who sleeps at a neighborhood shelter and visits the agency to eat lunch. Rodney and I were still strangers when I struck up conversation with him one day. He had taken a seat at the lunch table across from me. I said hello and introduced myself as a graduate student doing research on poverty. He nodded politely and fielded some of my questions, muttering a few words in reply. His body language said as much as his words, but I was not reading his signals. He looked down at his hands, a smartphone in each. I thought it was interesting that he kept two phones. He only glanced up briefly to address me. I had asked him whether he used Facebook on either of his phones. Rodney furrowed his brow and shot back his response: “Yeah, so what of it?”. I apologized for being nosy and looked down at my notebook. Rodney gathered his things and moved to a seat across the room.

I decided that I needed to switch up the approach I had taken with Rodney and others in those first weeks of research. With advice from an academic mentor and my classmates on campus, I returned to the field with the mission of adapting my style of interaction to what I

noticed was common among the people who frequented the agency. To start, I noticed that people were addressed with suspicion who, despite being strangers, were eager to talk and ask personal questions of others. “You stay on your side of the fence, I’ll stay on mine,” is how a regular client of the agency described a common rule of interaction. Among black clients I talked to, “dippin’” referred to asking personal questions of a stranger. I realized that I had been “dippin’” in my forward approach of attempting to learn about the lives of people I had not gotten to know.

These lessons in mind, I began to spend less time asking for interviews up front. I spent more time minding my own business, sitting at the lunch table with a magazine or browsing the Internet on an available computer. I joined in on conversations when it felt appropriate, contributing to everyday talk about sports and the weather. When talk turned to topics in which I was interested—such as what it took to survive day-to-day on the street and what applications people used on their phones—I asked people to elaborate. If I felt there was something I wanted to write down, I pulled out my notebook and used it as a prop to introduce myself as a student working on a research project. I informed people I would not attribute their comments to them by name. I honored people’s requests not to be included in the research and, on those occasions, put away my notebook to continue the conversation undirected by my research questions. When my conversant seemed particularly forthcoming, or, during subsequent conversations, I asked if I could record our conversation. I received permission less often to record conversations than to continue writing. This changed with some of my participants as I got to know them. Others agreed to be included in my study, continued to share intimate details of their lives, though preferred not to be recorded.

At the same time as I switched up my interactional approach, I took steps to minimize other markers of difference. I noticed how certain behaviors in the space of the office distinguished clients and more privileged members of the scene, including staff, interns, and volunteers. I started signing in at the front desk when I arrived, as clients and walk-ins are required to do but not interns and volunteers. I partook in small portions of the donated food, when it was ample, and sat at the lunch table where clients ate. I used the bathroom reserved for clients and walk-ins rather than the staff bathroom. I also dressed down. I began to wear older, looser clothes and to keep my jacket on, even inside on warmer days. As a younger, white man with horn-rimmed glasses hanging out among a largely older, primarily black clientele, I had few ideas that I was passing as a low-income member of the Waterside community. The intent was not to pass as a client to do covert research, but to help along the process of building trust by minimizing markers of difference (Snow & Anderson, 1993, p. 25).

Over a few months of visiting the office once or twice a week, I found the situation less awkward to start or join conversations with clients I did not already know. As I got comfortable, I found myself developing rapport with more of the people who spent time at the agency. My rapport with people who had the respect of others would end up being a tremendous advantage to my reputation with people I had not met. One man who came to enjoy talking to me was Jessie, a former client of the agency who returned most days to eat his lunch in the lounge. A black man in his sixties, Jessie enjoyed telling anyone at the office who would listen of the transformation he underwent from an addict to a sober man with steady work. I believe Jessie developed a fondness for me as someone who wrote as he spoke, someone he perceived to be recording the wisdom he had gained from experience. There was little that I pulled from Jessie's oratories that directly aided my research on homelessness and technology. Yet, I continued to spend time

listening to him talk. One day, Jessie told me to take down his number. He told me to call him and we would have a beer sometime. This was the first phone number I had received in the field and it made me feel as though I had developed a field relationship beyond mere acquaintanceship.

The many afternoons I spent talking with Jessie turned out to be fortuitous. When I next spoke to Rodney, the man who had moved seats to avoid talking to me in the early days of my research, it was a warm exchange. Jessie and Rodney walked into the office together that day. As it turns out, Jessie is uncle to Rodney. Jessie saw me at the lunch table and introduced me to his nephew, not knowing of our previous, less-than-warm exchange. Rodney and I got to talking and I learned that he kept two phones, because, in the midst of homelessness, one is always getting lost or broken or stolen. The conversation helped frame my research on the precarity of mobile phone access for people in poverty and how people make do with alternate configurations of phone possession, sharing, and use (Marler, 2019).

To arrive at the conversation with Rodney, I had to overcome the reasonable hesitation many members of low-income communities have toward others (S. S. Smith, 2007), researchers included (Liebow, 1967). I did my best to adapt to the social conventions of interaction I observed at the agency and minimize the markers of my difference. I also gained from earning the liking of a respected member of the scene. The agency offered a relatively structured, indoor environment in which to develop my ethnographic sensitivities over the first year of my fieldwork with unstably housed adults in Waterside. I would put these to use as I expanded my field work out into the public spaces of the neighborhood.

Around the Neighborhood

A year at People First allowed me to learn from experience what was required to develop trust with low-income adults in the setting of a nonprofit agency. The agency brought in people with diverse experiences of poverty from around the city in a relatively predictable, indoor environment. After the first year, I wanted to expand my field site to include places around the neighborhood relevant to the experience of people without stable shelter. I had heard about a struggle between homeless residents of the neighborhood and the city the previous winter, over the right of unhoused people to set up tents in a park near the Waterside. I wanted to see how these people were organizing their efforts and how (or whether) they used social media and smartphones to keep connected to each other and to the public.

I was weary of approaching people staying in the park without an introduction. I had in mind my attempts early in the study to strike up conversation with men asking for change on street corners. I began asking people around the agency whether they knew anyone who had slept in a tent in the park. One day, the opportunity came. I had been spending more time at the agency sitting beside people at the computers who were open to letting me watch as they browsed Facebook. During one such occasion, Vicki, who I have spoken of throughout this dissertation, paused on one of her Facebook friends. She told me I should meet this man, who was active in advocating for the rights of unhoused people in the neighborhood like himself. I sent the man, Eric, a friend request and asked him for an interview. We met at a coffee shop in the neighborhood the next week.

A thin man in his early 60s with a stern face, but easy smile Eric quickly became one of the most forthcoming of the people I interviewed and spent time with during my research. Depending on the night, he stayed either in a tent in the park or in a neighborhood SRO (single-room occupancy). As I have detailed in earlier chapters, I learned that Eric was a kind of

spokesperson, among others, for the situation of unhoused people in Waterside. He had as Facebook friends and phone contacts many journalists, activists, lawyers, and philanthropists around Chicago. Eric kept track of the people who were homeless in the neighborhood and helped coordinate outreach and charity efforts. One outreach was a pop-up church service and free lunch held weekly in the park under a sunshade, sponsored by a Korean congregation in the suburbs. Another was a food drop made weekly by a black philanthropist from a South Side suburb. Eric invited me to join for these occasions and said I could reach him by message on Facebook. I showed up to the church service the next Sunday, a frigid February day.

There was a diversity of people who gathered at the Waterside park for church services, food drops, and to sleep in tents overnight. In addition to a dozen or so who were sleeping outside, I learned that others who came to eat and worship in the park slept at shelters, affordable housing units, or nursing homes in the neighborhood. The scene was different for research than what I had experienced at People First. Many more people appeared to be under the influence of alcohol or drugs, and to be suffering from mental health issues. Among those who stayed in the park, I watched people urinate under trees or take care of their business in buckets set up for this purpose, as there were no public toilets in the vicinity. Though the park police largely tolerated the presence of the gatherings and overnight tents, people made sure to look for and track police vehicles when they passed by.

Though I never stayed overnight, I visited the park once or twice a week over several months to get to know more people hanging out at the park for lack of elsewhere to sleep or spend their days. When food was delivered by churches or community organizations, I played a dual role of volunteer and recipient. I helped unload and talked to the people who had brought the food. As at the agency, when it was clear that there would be leftovers, I sat in the grass to

eat my portion alongside other recipients. I dressed down like I did at the office. I listened more than I spoke. I never hid my identity in conversation, but neither did I preface every conversation with a description of my research. Perhaps even more than at the office, I sensed this would have been an awkward approach. When I heard something interesting that I wanted to follow up on for my research, I used my notebook as a prop to introduce myself, as I had learned to do at the agency.

Over the months, I felt that I recognized and had met a good portion of the people I saw regularly. Some were forthcoming in talking to me and others maintained their distance. What seemed to make people warm up to me was seeing me time and time again, and seeing others among them warm up to me. As the anthropologist Clifford Geertz (1973) observed, it can be particularly important how an ethnographer reacts to tense and emotional experiences shared with members of the field site. While I never ran with my participants from the police, I stood with them beside their tents when police questioned them, waited out in freezing temperatures for food to arrive, helped diffuse verbal altercations, sat with a woman who had been attacked by a stranger, and, occasionally, shared in a beer or sip of liquor when it was offered. When members of a church located in Indiana visited the northside Chicago park to deliver food and clothes, I let them pray over me as they did the others. “Things are going to turn around for you,” I remember the congregant telling me.

Thus, there was the rare occasion when it seemed I passed as homeless in the park. This was typically the case with non-regulars in the park, such as the visiting congregation or unhoused people from other parts of the city who passed through. To those who regularly stayed or gathered in the park, it became common knowledge that I was a student, or “professor.” I continued to communicate my student status and ask for permission when it came time to write

down comments and stories that would end up in my research. The notebook, again, aided in marking my difference and broaching the subject of my intentions for being in the scene. As at the agency, my notebook worked well as a prop to inform people—and remind them when they forgot (Thorne, 1980)—that I was different, that I was a researcher. And I worked to keep my differences from the people I was studying present in my own mind. Not the least of which was that I would return each night to my one-bedroom apartment a few neighborhoods away, while my participants would stick around, preparing their tents or returning to single-room occupancies in Waterside. If I slipped and started to think I was experiencing life in the park like my participants were, I recalled what one unhoused man replied when I first introduced myself to him as a researcher: "Oh! So, you're not one of us. You're observing us." Indeed.

Sharing experiences through consistent presence over time helped improve my rapport with the people who gathered and stayed in the park. At the same time, I was benefiting from the relationships I was developing with people experiencing homelessness in Waterside who had the respect of others in a similar situation. Eric, whom I have described as a kind of spokesperson for the Waterside homeless community, was an anchor for me when I felt out of place in the scene and knew no one else around at the time. People often approached Eric for advice and help, and it helped to be standing next to him when this happened. At the same time, I also found it useful not to rely on Eric too often once I came to see that not everyone appreciated the leadership he volunteered over the small community staying or gathering in the park. I describe in the section that follows the relationship that I developed with a black couple (the Freemans) who arrived at the park a few months into my research there. They tended to keep their space from Eric and to have the sympathy of more of the black members of the scene. I could alternate between

spending time alongside Eric and the Freemans when I wanted to get in on different kinds of conversations happening in the park.

I established the park as my second field site in Waterside, following a year gaining comfortability at the agency. As I spent time at the park in the second year of fieldwork, I began to take note of the additional neighborhood sites that served as anchors for daily life. In lieu of nine-to-five employment and a place of shelter where they felt comfortable and safe, people spent their days at public and semi-public locations—libraries, nonprofits, cafes, department stores—where they could find resources or simply sit and rest. I was already spending time at one such site, the People First agency. There were two or three people who gathered in the park who also visited the agency. I began to spend time at two public libraries in the neighborhood, where I would run into people I knew with some regularity. I sat at neighborhood cafes, fast food restaurants, and the cafeteria of a chain department store. I would run into my participants at Starbucks and the cafeteria, as well as at fast food restaurants, though not at one of the more upscale cafés in the neighborhood.

Making the rounds to these different sites helped me understand the role of indoor public spaces as anchors for the daily routines of unstably housed people. Spending time in these locations gave me opportunities to strike up conversation with people during different points in their day and settings that allowed for different kinds of conversations. For example, I found that people felt comfortable talking in some places and not others, and alone rather than in a group. Mixing up the locations was a benefit to data collection in that regard. As I elaborate on below, fortuitous encounters during my rounds were particularly important for keeping up with those with whom I lacked a reliable connection through a phone number, as I had with Jessie, or messaging application, as I had with Eric.

On the Platform(s)

So far, I have described the process whereby I established myself in a field site as a matter of face-to-face interaction. In this section, I dig into some of the issues I encountered in attempting to incorporate digital technologies into my efforts to observe people's lives and keep in touch with them. I consider whether and how smartphones and social media can serve ethnographers as tools to recruit and keep up with people experiencing homelessness, and as field sites in their own right.

The matters of getting in and gaining trust are mainstays of reflections on ethnographic methodology (Hammersley & Atkinson, 2007; J. Lofland et al., 2006). What is less often explored is the role of information and communication technologies (ICTs) in the practice of urban ethnography. This is a missed opportunity. Social media platforms, and the smartphones that grant us (near) continuous access to social media platforms, are novel means for ethnographers to observe and keep in touch with people whose lives are in flux, the lives of people they study. At the same time, while Internet scholars have advanced the methods of digital ethnography (Boellstorff, 2012; Hine, 2015), they have done so largely without a firm stance as to whether offline ethnography provides the context necessary for our conclusions about what people do online (Lane, 2016a). Digital platforms may be underutilized by ethnographers carrying out their studies through conventional means, that is, through face-to-face interaction. Internet researchers, meanwhile, miss much of the embodied context for what is shared and communicated online. There are important exceptions to this trend. Burrell's (2012) study of Internet cafes in Ghana and Lane's (Lane, 2019) offline/online research with youth in

Harlem are texts that guide my own approach, with their attendant methodological reflections (see Burrell, 2016 and Lane's [2018] Appendix).

What I hope to contribute to these and other reflections on digital-age ethnography with marginalized communities is an account of the balance that must be struck in taking advantage of smartphones and social media without relying on digital tools to replace face-to-face interaction. Additionally, I emphasize (and problematize) the more practical matters of recruiting and keeping in touch with our participants. First, I relate my attempts to recruit unhoused people through "cold calls" over Facebook. Then, I give the example of my relationship with an unhoused family to show how building rapport face-to-face can facilitate a fruitful online connection. Keeping up with our participants on social media can be productive for both data collection and the practical matters of staying in touch with people without stable housing. I also reflect on the limitations that come from relying on digital channels without attention to the face-to-face maintenance of field relationships.

I begin with the implications of social media platforms for getting into the field. Approaching people whose lives are very different from our own—in my case, people a generation or two above me struggling to secure long-term shelter—and asking them to be a part of our research can feel both awkward and intimidating. The social media environment changes the terms by allowing us to send out messages to our hopeful participants from the comfort of home, campus, or our favorite cafes. The social distance does not change, but the approach is potentially less stressful for both the researcher and the potential participant. Is there promise to approaching people experiencing homelessness online in order to kickstart an ethnography?

From the start, we should be aware of the extent to which the people we are interested in learning from are represented on social media. In my own case of research with low-income,

middle-aged and older adults in the U.S., I knew that a much smaller proportion of my population is active on the Internet and on social media than is their younger or wealthier counterparts (Hargittai, 2018; Li et al., 2018). I kept this in mind even as, in the course of my study, I came across several posts in homeless-related Facebook groups by people describing their situation and asking for housing referrals or a place to stay. Sensing an opportunity for recruitment, I sent private messages to four people who made these posts. In the messages, I identified myself and made the request for an interview in as considerate a way as I could devise, including in my messages a link to city services for people without shelter. Not wanting to compel people to accept an interview out of financial desperation, I offered no compensation.

My four messages received no replies from the strangers in need. One opened the message, according to the indicator in the Facebook messaging application. The three others never did. There are myriad reasons why people experiencing a crisis like eviction might not reply to a message online from a researcher. An unhoused person may be hesitant, like most people, to engage with strangers online (Vitak et al., 2018). They may be disinterested in or suspicious of academic research, in particular. They may have lost touch with their online accounts in the process of losing their housing. Or, they may simply have not seen the message, as Facebook does not make messages from people not in one's network obvious to see.

My (admittedly limited number of) social media "cold calls" were an ineffective means of recruiting people experiencing homelessness into my study. Of course, other researchers might benefit from approaches I did not pursue. Certainly, offering reimbursement could help, keeping the ethics of such reimbursement in mind. Sending more messages to specific and active online communities of people experiencing homelessness would increase one's chances of getting responses. The matter of informed consent is critical in this context, and friend or follow

requests should be sent with messages indicating who you are and why you are reaching out, as well as the clarification that the person you are contacting may remove you from their contacts at any time (Lane, 2019).

Noting the uncertain potential of social media cold calls, I want to broaden my point. What would it mean to rely on a sample of people active on social media to make conclusions about how the Internet impacts the lives of people experiencing homelessness? Suppose I had been successful in recruiting a number of unhoused people through their postings on Facebook. I could learn about how the ability to reach out over Facebook shifts the terms of support-seeking for people going through crises. What I would not learn were the perspectives of those who sensed the importance of social media for connection and support but, for various reasons, remained offline or highly passive in their digital participation, much less the perspectives of those who never considered how social media could be helpful to them. As I observe in my current phase of research in Waterside, people living on and off the streets are often motivated to be active on Facebook and other social media platforms. Yet for important reasons—such as a limited understanding of how to use social media platforms and specific concerns over their online exposure—many choose to stay off the site. Others I have met in person had a Facebook account but are strictly "lurkers," contributing no posts, photos, comments, or "likes" for digital ethnographers to record. The lesson here is that the Internet, and social media in particular, can have important meaning for people's lives who do not use them, or barely do. Focusing on active users will miss out on these experiences of these people and may easily result in researchers drawing the wrong conclusions.

Thus, I argue that due diligence for digital-age ethnographers involves engaging in-person with the people from whom we hope to learn. That leaves open the question, how do we

transition from an in-person relationship established in a field site to the addition of a digital connection? How does an ethnographer balance the in-person and digital aspects of an offline/online ethnography? Below, I show how my spending time face-to-face with a family experiencing homelessness grew into a meaningful connection over Facebook. I explore how to balance the opportunity of digital channels of communication with the need to maintain face-to-face interaction in the study of the lives of people who are unstably housed. This conversation leads to a conclusion in which I synthesize the in-person and digital discussions to provide take-aways for digital-age ethnography with people experiencing homelessness.

Briana and Donnie Freeman are a married couple living on Chicago's northside. They are black parents raising two sons while experiencing homelessness. I got to know them before they had acquired their family-sized tent to sleep in. The family still slept on blankets and tarps under open air. Every night, they laid their makeshift beds on the grass in a public park near the lake front. Park security largely tolerated their presence for the first six months I knew them. Our meetings and conversations began in person and shifted to online channels as trust developed, namely, Facebook Messenger. I learned to converse with Briana and Donnie based on their independent communication styles.

Before we connected on Facebook, I relied on guessing where the Freeman family would be at particular times of the day and week based on certain reoccurring events. There was the church service every Sunday and the food drops every other day. I could generally rely on seeing one or both of Briana and Donnie at these events, with their sons alongside. I found other opportunities to cross paths with the Freemans as they shared more with me about their daily routines. I began to spend time in the cafeteria of a department store that offered wi-fi as I could

count on running into the Freemans there once every few visits. There was a unique pleasure in these fortuitous meetings that lacked when we scheduled a time to meet.

The reliability of these face-to-face encounters with the Freeman family came and went. A few weeks passed when I did not see them at all. The family had stopped attending the church service out of a distaste for the worship style; meanwhile, the philanthropist became less reliable with his food drops. Not seeing the Freemans troubled me. It meant losing my observational perspective on how the family managed their lives day to day. More personally, I wondered if the Freemans were doing okay. I turned to circling the park on my bike hoping to run into the family, and spending more time at the department store cafe. I asked around among church attendees and others among the community of unstably housed who gathered at the park. I got different answers and guesses as to where the Freemans had gone, and nothing conclusive.

Then, after a few weeks had passed, I arrived at the park to see Donnie chatting with the South Side philanthropist, who had arrived with large platters of chicken and rice. Briana and the kids were nearby. After exchanging greetings, I learned from Donnie that the Freemans had been taken in by a charitable stranger who played host to them for a few weeks at her suburban home. After interviewing him about this experience, I decided to broach the subject of exchanging phone numbers. Briana's reply was to ask if I was on Facebook. She explained that their Facebook accounts were more reliable as a means to keep in touch than their phone numbers. Briana said she expected her phone number to change if the family decided to switch carriers to take advantage of a sign-on deal, such as a free phone they could give to the older of their two sons. They may also drop their phone numbers if they hit a wall in their ability to afford their current monthly service plan, which included an allotment of talk, text, and data for the family to

share. They would save money by signing up for a cheaper, pay-as-you-go service plan, getting a new phone number in the process.

I paused to jot down my notes as Briana spoke. I broached the subject of observing the couple's activity on the site for research, beyond just exchanging messages there. I told them it was part of my study to understand how people experiencing homelessness "use technology to connect with others and find opportunities." I told them I would follow their posts and observe their interactions and connections, and ask them about it in interviews. Donnie nudged my shoulder playfully: "Alright, professor, I hear ya! Let's do it." He and Briana pulled out their smartphones and searched my name. We became Facebook Friends.

My connection with Donnie and Briana on Facebook made for two advantages in regard to how well I could continue to learn from them about the experience of being homeless in the digital age. The first was a new site for data collection. Observations extended now from the park and neighborhood cafes to what Donnie and Briana shared on their Facebook (and later, Instagram) feeds. My data now also included conversations we had in our private message threads. I noted how Briana projected a sense of normalcy in her social media feeds—posts about gourmet food, pop culture, and photos from childhood—that was lacking in her daily life living on the streets. While Donnie posted little to nothing publicly, he included me in a steady stream of private messages of the "share this with 10 of your friends" variety. Donnie seemed to reserve social media for browsing and forwarding content on private messages, while Briana was more forthcoming, posting to her timeline and engaging in in-depth conversations with me about their family's condition over private messaging.

The second advantage of our Facebook connection was practical. Briana, in particular, was timely in checking and responding to my messages. I no longer had to rely on charity events

or making the rounds in the park or at public wi-fi hotspots to see her and her family. I could reach out to check with them to see about joining them to catch up. Without the Facebook connection, I might have lost touch with the Freemans like I had once before. Half a year after we became online friends, winter was approaching, and the Freemans were making plans to find indoor shelter. They chose a shelter that would house families in a South Side Chicago neighborhood, more than 45 minutes by train from Waterside, where my research was centered. Due to a rapport built in person, I was able to carry on a conversation with Briana and keep up with her posts over Facebook despite the family's move across town. We could reconnect in person, having the anchor of social media to maintain the relationship. This was a tether for the relationship that, in the case of the Freemans who were active on social media, but often went without phone service, a phone number could not provide.

There are limitations to social media as a practical advantage for ethnography with people who are unstably housed. First, a Facebook account is not impenetrable to the precarity of life without stable shelter or income and the risks of going online with limited digital literacy. Phones are lost, broken, water-logged, and stolen (Marler, 2019). Public computer access does not always fill in the gaps. This is because people may lose access to their social media accounts. Several of my participants went through two or three Facebook accounts over the period of the research project, having been locked out due to forgotten passwords (including those of connected email addresses) or breaches of their account security.

Second, different styles and motivations will make online communication fruitful with some, but not other participants in a study. As the Freeman's physical presence in my study waned, messages with Briana continued to offer me insight into her and Donnie's struggles to secure long-term shelter for their family while Donnie was less a resource through online

exchanges. He passed along mass messages but did not engage me in substantive back-and-forth. I was starting to get Briana's perspective absent of Donnie's.

Finally, the richness of conversations over instant message is likely to fade as time passes without sharing experiences in person. Indeed, as the Freemans continued to search out housing elsewhere in the city, I felt online conversations hollowing out with Briana. I arranged for us to meet at a restaurant when the family was back in the neighborhood. It helped to rekindle our relationship to share a meal and recall our experiences in the park.

Conclusion

There is no ready blueprint for studying homelessness through ethnography. The digital age adds new uncertainty, as technologies reshape how we communicate and relate to one another. Similarly, there is no one experience of homelessness for the people who go through it. Researchers setting out to learn from people experiencing homelessness in the digital age must be prepared to adapt in order to get into a field site, gain trust once there, and keep up with research participants as their lives move about the neighborhood and beyond. I set out in this chapter to recognize my own mistakes and adaptations as a novice ethnographer of homelessness and communication technology. I hope that readers take away a few key lessons.

To start, getting access to people who can teach you about homelessness from their experience of it may require time and more approaches than one. It may be tempting to start collecting data right off the bat with the people who appear to be the most accessible. That approach may fail outright, as with my Facebook "cold calls", or may return shallow data, as in my impromptu interviews with people asking for change on street corners. I found the latter to be

the case as well in my first weeks at the agency, when I was overeager to get interviews from people I had just met.

Indeed, what makes ethnographic data unique and valuable is that it emerges from trust relationships built on shared experiences over time. Still, it can feel a vague and intimidating prospect to set out from campus to find a place where you can start spending time with people experiencing a situation often distant from your own. The advantage of getting permission to spend time at the agency was that I found a setting with some structure—an indoor office space with social workers and seating areas for conversation—that was lacking on the street corner. I learned to pace my approach as well as to build relationships with respected members of the scene who could vouch for me with others. As I expanded my field site outside the agency, I noted how the dynamics inside the agency shaped the data I collected and how people shared different perspectives through conversations in the park, library, or cafes. Heading into less (and differently) structured environments around the neighborhood, I took with me the lessons of pacing my approach, building on shared experiences, and being intentional in relationships with respected members of the scene.

In this chapter, I have highlighted the lessons that apply particularly to ethnographic research that takes seriously the Internet as a tool for research and a force shaping contemporary life. The role of smartphones, social media, and the Internet at large, in our data and in our means of collecting data is what I mean by research "in the digital age." I argued that it requires spending time with people experiencing homelessness offline to get a broad understanding of the role social media play in their lives, whether they are active or not on social media platforms. By establishing digital ties with the people from whom we hope to learn in our ethnographies, we expand the realm of data collection and gain a tool for keeping in contact. The

latter is a particular advantage when our research concerns populations whose whereabouts and routines are likely to change due to the lack of stable housing.

My conclusion thus departs from the advice offered in a recent and influential ethnography of housing instability caused by eviction. In asking how a researcher might develop a disposition conducive to ethnography before ever stepping into the field, Desmond (2016) suggests, in a footnote, “It also helps to get rid of your smartphone” (404). Yet, digital spaces and the smartphones that grant us access to them are increasingly a part of everyday social life, even for those experiencing homelessness. As such, ethnographers should embrace the smartphone and learn to be duly attentive to what our participants say and do both online and off (Lane, 2018). As my experience with a community of unstably housed adults in Chicago suggests, offline/online ethnography will be most successful when there is a balance struck between keeping in touch online and sourcing those observations and conversations with time spent in person.