



“Come on f—er, just load!” Powerlessness, waiting, and life without broadband

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Abstract

Waiting is a way of experiencing the effects of power. This article finds those waiting for fixed broadband connection are powerless to end the waiting and increasingly frustrated with the powerful—the governmental officials, policy makers, and broadband providers—who control their waiting. This article, built on 19 interviews with residents of a rural county in the United States, details the lived experiences of those waiting for a fixed broadband connection and shines a critical light on the unequal power dynamics of digital inequality and waiting. The findings demonstrate residents suffer from “chronic waiting” for a connection. They also wait while using the internet, via inferior mobile connections, laboring through issues such as buffering. Finally, the findings illustrate the only way to avoid “technology-induced waiting” is to wait in alternative ways, including turning into a “second-shift” family to enjoy internet service in the middle of the night.

Lay Summary

This research finds that waiting is a common, stressful, and vexing part of living without a fixed broadband connection. This article offers a deep and rare exploration of the inequalities facing those on the wrong side of the digital divide, demonstrating a painful feeling of powerlessness. Residents wait for a home broadband connection with no idea when their waiting will end. They wait while using the internet with poor connection speeds leading to buffering, lag, and slow download and upload speeds. To avoid these technology-induced types of waiting, residents wait in alternative ways. Most striking, this includes “second-shift” families that wait until the middle of the night to enjoy improved internet service and entertainment.

Keywords: rural broadband, digital inequalities, waiting, time, power

Everyone waits. Waiting is a “universal experience,” something everyone can detail in “some personal way in relation to their own lives” (Bournes & Mitchell, 2002, p. 58). Our waiting is significant and insignificant, ordinary and extraordinary. As Hage writes, our waiting includes “for an ice cream and for final judgment” (2009, p. 5). While everybody waits, “nobody likes to wait” (Schweizer, 2008, p. 778). Time is an irreplaceable and finite resource. Time is “necessary for the achievement of productive purposes,” and we cannot suitably end endeavors unless time is “spent” or “invested” (Schwartz, 1974, p. 868). One can measure waiting in seconds or minutes or days or years, but, it is obtuse to reduce waiting to quantifiable terms. To do so, is to “suppress its qualitative temporal consciousness” (Schweizer, 2008, p. 781). Not all time spent waiting is equal. Waiting is rife with inequality, unevenly distributed along lines of race, class, gender, geography, and citizenship (Auyero, 2011; Foster, 2019; Grubestic & Murray, 2004; Hite, 1997; Seefeldt, 2017; Rotter, 2016; Turnbull 2015).

There, too, is inequality in accessing a fixed broadband connection, often identified as a seminal component of a multi-scalar “digital divide” (Norris, 2001; Van Dijk, 2020). The divide between the “haves” and “have nots” of digital technology, access, and skills overlap with pre-existing inequalities of race, income, and education (e.g., Turner, 2016). The digital divide frequently falls along the urban-rural divide. Broadband infrastructure is relatively omnipresent in the metropolitan areas of the United States, though, of course, with exceptions,

even in major tech hubs (Chen & Li, 2021). The broadband infrastructure is notably unequal and inconsistent in rural areas (Grubestic & Mack, 2017; Ali, 2021). This has led to areas that lack readily available and affordable access to “high-performance” broadband (Sallet 2019), areas even called “broadband deserts” by scholars (Mathews & Ali, 2022). This has become particularly visible during the COVID-19 pandemic which underscored the need for high-speed affordable broadband access at home (Mathews & Ali, 2022).

Despite both the ubiquitous nature of waiting and popular attention to the digital divide, there has been no scholarly research that specifically and extensively addresses their intersection. Built on 19 in-depth interviews with residents of a rural East Coast county in the United States, this article offers a novel approach to shed light on the lived experiences of those waiting on broadband connection and to bring needed nuance to the discussion of the digital divide. In marrying the discussions of waiting and the digital divide, this article offers the power dynamics of waiting to the inequalities of the digital divide and offers the digital divide as a fresh and rich location to analyze waiting.

Ultimately, this article points a critical lens at this intersection. Pierre Bourdieu (2000) writes that waiting is a way of experiencing the effects of power. We found those waiting on connection are powerless to end the waiting, increasingly frustrated with the powerful—the governmental officials, policy makers, and broadband providers—who control their waiting. Our findings demonstrate those waiting for connection suffer from “temporal

domination,” waiting for an organization to deliver much-needed resources (Reid, 2014). These findings also emphasize critical concerns of “digital dignity” (Strover, 2019), or, more to the point, the *indignity* of waiting, which shines a light on the distinctions between those with connection and those without connection.

To briefly summarize, we make three empirical contributions. First, people suffer from “chronic waiting” (Jeffrey, 2008) with no temporal specificity or timeframe for gaining broadband access to their homes. Second, people wait while using the internet, laboring through issues such as buffering, interruption, and slow download and upload speeds. Third, in order to enjoy a better connection, people choose alternative ways of waiting, such as turning into a “second-shift” family and waiting until the middle of the night to enjoy entertainment. Taken together, we argue that while internet service is not reliably present everywhere, waiting is omnipresent.

Conceptual framework

Waiting, power, and inequality

Despite the pervasiveness, ubiquity, and inescapability of waiting in daily life, waiting plays a minor role as a subject of academic inquiry, the notable exceptions documented herein. There is a long line of theoretical literature on the social elements of time (Sorokin and Merton, 1937; Durkheim 1965; Csikszentmihalyi, 2075; Giddens 1986; Munn 1992), but “waiting, as a particular experience of time, has not received the same scholarly attention” (Auyero, 2011, p. 7). More to the point, Schweizer suggests waiting is “hardly mapped and badly documented” (2008, p. 1). Some suggest this is because waiting is something we take for granted (McCarthy, 2001) and is even called the “neglected Achilles heel of modernity” (Bissell, 2007, p. 277). Indeed, the acceleration of time in modern society is studied regularly, but much less is written on “thick time,” when the clock moves slowly (Anderson, 2004).

Waiting can be thought, simply, as the “exact opposite of activity” (Minkowski, 1933), but it is “much more than empty time” (Sebald, 2020, p. 15). Waiting is a pause between present and future. As Crapanzano (1986, p. 45) writes, waiting is a “holding action—a lingering.” In waiting, he writes, “the present loses its focus in the now. The world in its immediacy slips away; it is derealized. Its only meaning lies in the future.” The act of waiting indicates a person is focused on the future, even an unknown future. As Gasparini (1995, p. 31) posits, waiting is “at the crossroads not only of the present and the future, but also of certainty and uncertainty.” Waiting shines a light on our anticipations and desires, our dreads and anxieties and “heightens people’s awareness of their needs” (Vanstone, 1982, p. 103). The mere possibility of an event, moment or material item is what “produces the experience of waiting” (Bissell, 2007, p. 282). Waiting confirms a degree of caring. After all, “one cannot be indifferent to something and wait for it” (Rotter, 2016, p. 82). Waiting can pin-point what is lacking in our present, highlight shortcomings of the past, and build toward an improved future.

The passive state of waiting

Waiting, however, is often out of our control, “reeks of helplessness,” and illustrates “we are not fully in command of ourselves” (O’Brien, 1995, p. 177). Waiting is a passive state

in which our wishes are out of reach, nor can we hasten their arrivals. The experience lacks agency on the part of the waiter, as “we can ‘only wait’ for what we wish to happen, as opposed to actively doing something or another to make it happen” (Hage, 2009, p. 2). Waiting time is commonly considered inactive, useless and wasted, and is strongly associated with boredom (Gasparini, 1995). As Farman writes, “our hatred of waiting may be a reaction to the existential crisis that all we might have in life is to watch time pass without our ability to do anything about it” (2018, p. 12).

Temporal specificity, meaning the presence or absence of a deadline as an assurance of action, is a critical characteristic of waiting (Richards & Rotter, 2013; Rotter, 2016). A deadline allows those waiting to place themselves in relation to the established timeframe (Gasparini, 1995), offering “some degree of control over the situation, through knowledge” (Rotter, 2016, p. 90). When there is no deadline, with those waiting for an unidentifiable point in an unknown future, the waiting incurs an “open-endedness” (Brekke, 2004, p. 23). This condition, when a person not only waits but is oblivious to the length of the wait, is “punitive sanctioning of the most extreme kind” (Schwartz, 1974, p. 862). Waiting over long periods of time has been called “chronic waiting,” producing a state of constant waiting and eliminating the ability to plan for the future (Jeffrey, 2008). This generates a “sense of paralysis or restricted, non-linear movement in time” (Rotter, 2016, p. 90).

Waiting stirs emotions in those who wait. Empirical research has found waiting fuels frustration, anger and powerlessness (Turnbull, 2015), and is associated with a lack of respect, dignity, and self-esteem (Zerubavel, 1981). These emotions amplify the investment of the waiting’s end, increasing its costs and decreasing the value resulting from it (Schwartz, 1974). Moles (1991) called this a “time tax.” There is a political economy to waiting, especially for goods and services. “Time is money, and waiting can be a waste of time,” Hage (2009, p. 3) writes. Services that come with immediate access—and no waiting—are of less relative value. After long waits, we demand more and place higher expectations on the end of the waiting (Schwartz, 1974). Waiting, thus, is more than an obstacle to a desired end, but rather waiting establishes its subjective value.

“Temporal domination”

Waiting is universal, but the “experience of waiting is not a universal one” (Foster, 2019, p. 462). The waiting is as diverse as the person who is waiting. The regularity, the length, and the lived experience of waiting differ. Ultimately, waiting is stratified, used as a form of social control and an exercise of power. Sociologist Barry Schwartz perhaps has done the most to associate waiting and power, writing “the distribution of waiting time coincides with the distribution of power” (1974, p. 867). Bourdieu (2000, p. 228) writes that “making people wait”—or “delaying without destroying hope” and “adjourning without totally disappointing”—are primary elements of domination. He adds that for those who must wait, “waiting implies submission.” While waiting is an unavoidable part of living in the world as a social being, we flee from it whenever possible because it puts us in positions of powerlessness. Griffiths (2014, p. 6) concludes “being made to wait” is “inextricably bound up in power relations.” In sum, “far from being a coincidental byproduct of power, then,

control of time comes into view as one of its essential properties” (Schwartz, 1974, p. 869).

As Hage writes, the status relations are the “very obvious sense of ‘who waits for whom,’ which also means: who has the power to make their time appear more valuable than somebody else’s time?” (2009, p. 2). Often, the marginalized wait on government entities for important goods and services. Reid (2014) calls this practice, when an organization has the ability to make people wait for needed resources, “temporal domination.” For the poorest in society, waiting is a daily challenge (Moran, 2005). The privileged, those with more resources, wait less. For instance, they pay to be among the first on a plane. McCarthy (2001, p. 199) posits that the “distribution of waiting time coincides with the distribution of the poor.” Ehn and Löfgren argue “the only way the poor can avoid waiting is by agreeing to settle for no service at all” (2010, p. 69). Time, thus, is just another mode in which inequality can be measured in the marginalized.

Broadband, Rural America, and the unconnected

The second major line of research we examine focuses on broadband and connectivity, especially in rural spaces. “Broadband” is defined in a wide variety of manners (Grubestic & Mack, 2017). In the United States, the Federal Communication Commission (FCC) (2021) defines broadband as “always on” internet connection of at least 25 megabits per second (mbps) download and 3 mbps upload (FCC 2021). In contrast, the Congressional Research Services offers a definition based on usage rather than speed:

Broadband is provided by a series of technologies (e.g., cable, telephone wire, fiber, satellite, mobile and fixed wireless) that give users the ability to send and receive data at volumes and speeds necessary to support a number of applications including voice communications, entertainment, telemedicine, distance education, telework, e-commerce, civic engagement, public safety, and energy conservation. (2019, p. 2)

The term “digital divide” encompasses much more than broadband access and includes affordable access, access to technology and access to training (see below on digital equity and inclusion) (Van Dijk, 2020). The digital divide maps on to extant social inequalities, including geography, class, race, and income. In research focusing on technology maintenance theory and poor people in the United States, for instance, Gonzales (2016) found that internet access is unstable and frequently has periods of disconnection, brought by the inability to pay service bills and/or repair hardware and the constraints on public access. In another study, researchers found the homeless suffer from unreliable conditions with mobile use, developing the concept of “access instability” to explain that it is not just technology access but struggles stemming from poverty, housing insecurity, and discrimination (Galperin et al., 2021).

The lack of broadband access because of infrastructure availability (rather than, for instance, affordability) is particularly acute in rural areas (Ali, 2020). The FCC (2021) reports that one-in-five rural Americans, a total of 16 million people, lack broadband access. Scholars and researchers, however, question the FCC’s conclusions with most studies suggesting the FCC overestimates broadband deployment in the U.S. by upwards of 50% (Meinrath, 2019). BroadbandNow, for

instance, found that more than 40 million Americans lack access to broadband (Busby & Tanberk, 2020), while Microsoft estimates that 157 million Americans lack access to the internet at broadband speeds (Kahan, 2019). Even when access is available, that does not automatically translate to adoption. When it is available only 63% of rural residents subscribe to home broadband (Perrin, 2019). Additionally, lack of competition means that 36% of rural households do not have a choice of providers and rural residents pay over 30% more for subscriptions (already a national average of \$84/month) than urban Americans (BroadbandNow, 2019; Sallet, 2019; Chao & Park, 2020).

The lack of what Jonathan Sallet (2019) calls “high performance broadband” in rural America is due primarily to a lack of modern infrastructure. The lack of infrastructure, in turn, is a result of market failure (Ali 2020). Here, private providers are unwilling to connect rural communities because of a lack of immediate return on investment (Crawford 2019). The *Wall Street Journal* has called this condition one of being “stranded in the dial up age” (Levitz & Bauerlein, 2017). The end-result for rural Americans is a perpetual condition of waiting: waiting for telecommunications companies to wire a community, waiting on policymakers to recognize broadband limitations, waiting on state officials to allow cooperatives and municipalities to fill the gaps, and waiting on a webpage to load because of inadequate service (Grubestic & Murray, 2004).

Digital equity, inclusion, and dignity

As noted above, the digital divide is more than simply broadband access. As a result, many have turned to the terms “digital equity” and “digital inclusion” to capture the multiple modalities of digital access and availability. As defined by the National Digital Inclusion Alliance (NDIA), the preeminent voice in the field, digital equity is “a condition in which all individuals and communities have the information technology capacity needed for full participation in our society, democracy and economy.” Digital equity, therefore, is a normative, social justice goal. Relatedly, “digital inclusion” refers to the programmatic elements put in place to achieve digital equity. These elements include affordable, robust broadband internet service, devices that meet the internet needs of the user and online content that encourages self-sufficiency and cooperation (NDIA, 2017).

Both digital equity and digital inclusion have been recognized as crucial components of the “digital divide,” expanding its definition beyond the traditionally thought notions of the “haves” and “have nots” of internet access (Stratton, 2021; Van Dijk, 2020; Quaintance, 2018). Moreover, governments, notably state and local, and institutions and organizations across the country have begun implementing digital inclusion efforts to complement funding for broadband infrastructure deployment (Stratton, 2021). The connection to waiting is that digital equity and inclusion programs are meant to diminish the time spent waiting—for connectivity, for devices, for information, for help, and to end the digital divide.

Sharon Strover (2019, 2020) has written poignantly on the importance of connectivity and the first moments of connection as part of a series of projects investigating digital inclusion efforts at public libraries. In one study of a hotspot loan program at New York City, Strover (2019) coined the term “digital dignity” to capture the sentiment of feeling “just like

everybody else” that comes with connectivity. More specifically, Strover concludes:

The programme participants were very grateful for having these devices, for the time savings they brought and especially for the opportunity ‘to feel like everyone else,’ a feeling that we labelled digital dignity. They could not afford to purchase the equivalent internet service on their own.

Connecting the dots between the desire to achieve digital dignity as articulated within library connectivity programs and phenomenological experience of waiting, Strover observes how “libraries report that hotspot lending programmes are popular, so popular in fact that long waiting lists for the devices may be common.” The take-away here is that social and political economic inequalities lead to waiting, even when one wants to get connected.

As explained by Strover (2019) and Strover et al. (2020) libraries are key anchor institutions in correcting the digital divide, however, their lack of resources means that not all will be served and these patrons will be forced to wait. That is, assuming that the library offers a digital inclusion program to begin with. There is therefore considerable research, both conceptual and empirical needed around both the concepts of digital equity and inclusion and the practices and performances of these terms (Stratton, 2021). There is, moreover, a strong connection between digital dignity and the political economic *indignity* of having to wait for digital connectivity. As Farman (2018, p. 78) notes “in many circumstances, the uncertainty and precarity involved with waiting functions to reiterate the harsh divide between those with wealth and power and those without.”

In summation, digital equity and inclusion represent key interventions within the digital divide and seek to redistribute and horizontalize power. That said, presently, the experience of digital waiting serves to remind those who have to wait that they are not “just like everybody else.”

Despite the universal nature of waiting and despite the universal acknowledgment of a digital divide and its resulting inequalities, there has been no scholarship that specifically tackles their intersection. This article offers a case study from a rural county devoid of many of the everyday conveniences most Americans would take for granted. This article will ask the following research questions: (RQ1) How do rural residents experience waiting in their limited broadband environment? (RQ2) To what extent does waiting in the limited broadband environment affect residents on a daily basis? (RQ3) What strategies do residents use to combat waiting in the limited broadband environment?

Case and method

To answer these questions, we conducted 19 in-depth interviews with residents of Surry County, VA, during the summer of 2020. Surry County was selected purposefully for its rural status, its demographics and its lack of widespread internet access. Surry, the county seat, is 13 miles from Williamsburg, 37 miles from Newport News, and 45 miles from Norfolk. In the 2010 census, Surry County had 7,058 people. The population is dispersed in the rural county as well, with the largest town, Surry, only accounting for 244 people. In Virginia, there are 95 counties and 38 independent cities, which are not part of a county. Based on the 2010 census, of the 133

counties or independent cities, Surry County had the seventh lowest population per square mile (25.3). That was dramatically less than Virginia overall (202.6) and the United States overall (87.4). Also, according to the 2010 census, Surry County was more diverse, older, poorer and less educated than Virginia and the country. Surry County is a diverse population, with 54.6% white and 42.3% black, compared to Virginia (69.5% white, 19.9% black) and the United States (76.5% white, 13.4% black). Surry County has 22.7% of its population that is 65 years or older, compared to 15.4% in Virginia and 16.0% in the United States. Only 17.6% of Surry County has a bachelor’s degree, compared to 38.2% in Virginia and 31.5% in the United States. Finally, Surry County’s average median household income is \$54,844, compared to \$71,564 in Virginia and \$60,293 in the United States. The largest single employer in Surry County is the Surry Nuclear Power Station for Dominion Energy, with nearly 1,000 employees (VEDP, n.d.). Notably, many county workers leave the county for employment. More than a third of Surry County workers, however, commute at least 45 minutes to work, including 16% who travel more than an hour (VEDP, n.d.).

At the time of interviews, Surry County had the worst internet access of any county in Virginia, according to the FCC (n.d.). Only 3.65% of Surry County had access to a broadband network. This does not mean, however, that all these people actually utilized that access at home. Just four of our 19 participants had fixed-broadband access. In early 2020, Surry County received a \$2.25 million grant to provide broadband service to 1,253 homes. RURALBAND, a subsidiary of Prince George Electric Cooperative, then started the process of establishing a broadband connection for Surry County residents (RURALBAND, 2020). That process was ongoing during the time of interviews. Without fixed broadband, residents relied on their mobile phones or separate devices called “hotspots” to gain internet access. Hotspots are small devices that use mobile data to connect digital devices in a home or business. Verizon, which provides 4G service in Surry County, is the only mobile provider available for the county residents. Verizon’s hotspot product is called Jetpack, to which most of the respondents either presently or previously subscribed. As many have argued (Grubestic & Mack 2017; Wulf, Zelt & Brenner, 2013), mobile broadband and fixed broadband are not interchangeable, especially since mobile broadband often comes with data caps and expensive overage charges.

This project utilizes 19 semi-structured in-depth interviews with 12 females and seven males. IRB coronavirus protocols at the time did not allow face-to-face interviews. Given the unreliable internet connections in Surry County, video interviews would have been challenging. Thus, all interviews took place on the phone. A true long-term ethnographic project would have been ideal to explore the people and circumstances in Surry County, gaining what Geertz (1973) called a “thick description” of the environment. Ethnography also helps surface discrepancies between what participants say they do and what they actually do (Madianou, 2009). Unfortunately, IRB protocols did not allow for such a method. The IRB limitations also ruled out in-person panel discussions. In-depth phone interviews, thus, were the best method to allow to explore the lived experience of those in Surry County. The advantage of in-depth interviews is that they provide more detailed information than other types of data collection, like surveys (Boyce & Neale, 2006).

Through interviews, researchers can better explore the *meaning* of the participants' words and actions by encouraging them to "tell stories rather than just answer questions" (Tracy, 2013, p. 140), probing the meaning of ordinary events and highlighting the "magnified moments" that resonate in memory (Hochschild, 2003, p. 16). Pugh (2013) explains that interviews allow researchers to tap into the meta-feelings of participants, the "how we feel about how we feel" (Pugh, 2013, p. 51). With meta-feelings, participants "tell us not just what they think and feel, but how it feels to feel that way—for example the emotional environment that they inhabit and the particular pressures that this cultural world puts on them" (Pugh, 2013, p. 49). The meta-feelings give a sense of how proud or embarrassed someone might be when they discuss a particular feeling or their behaviors. In this study's case, the participants explored their feelings of waiting, a lack of connection, and the inequalities within.

We identified participants using a Qualtrics screening process, verifying participants were at least 18 years old and residents of Surry County. A link to the initial Qualtrics survey was posted in the Facebook page "It's Happening in Surry County Virginia." Using such a tactic is less than ideal, given Surry County's limited broadband access, but, again, we were limited by IRB protocols at the time. This process resulted in four interviews, starting a snowball method in which, upon interview completion, participants were asked to recommend other potential interviewees. By harnessing "the dynamics of natural and organic social networks," snowball sampling is a useful method that may reveal both social knowledge and power relations (Noy, 2008). Appendix A offers the limited demographic information collected, including gender, race, age range, and education. Given the small, rural nature of the county in the study, descriptions of their work positions, life situations, etc., have not been greatly detailed here. This conscious decision, as well as the use of pseudonyms, was used to protect the identity of participants.

The interviews resulted in complete transcripts of 356 pages and 120,000 words. We compared, collapsed and abstracted themes to more parsimonious levels of meaning through open coding (Strauss & Corbin, 1990). Key phrases and concepts from interviews generated additional open codes. We clustered codes into categories and compared them across interview transcripts, noting similarities, differences and general patterns. This process of collecting, coding, and analyzing the data resulted in the three themes of waiting detailed in the following section: (a) waiting for a home broadband connection, (b) waiting while using the internet, and (c) waiting for a better connection to the internet.

Findings

Waiting for a home broadband connection

The most palpable practice of waiting is waiting for a home broadband connection. Residents described "chronic waiting" (Jeffrey, 2008) without a deadline, leaving them displeased, pessimistic, and powerless. For some years, the county progressed toward a broadband solution. Beginning in 2020, RURALBAND started to provide broadband connection for residents. By the time of these interviews, many residents were still waiting and frustrated from a decade-plus of previous disappointment. Gary, who is in his late 20s, grew up in Surry County with unfulfilled promises of fixed broadband

connection. "I'll believe it when I see it," he said. "When I log on, I'll believe it." There have been discussions in county government meetings "for years," Gary said. Exasperated, Gary explained the waiting and sense of powerlessness over the situation.

There were board meetings locally, talking about the fiber optic lines being laid through town. I mean, and that's been several years since that's been done. When that was getting done, people thought, "Oh, this is going to be great. We're finally going to get the internet." And then it's been years and years and years, and it keeps getting pushed back and delayed and other companies come in and say, "Okay, we'll do it." And then those things fall through.

One participant described the details of when the county legislative leaders first met with RURALBAND officials. "The board realized they needed to get onboard with it and that was I think, a major turning point for this," Paul said. Frustratingly, to those waiting, that was "about three years ago," Paul said. Gary was more direct, criticizing governmental officials with power in the situation. "It's just a failure on the part of the government," he said. "Just absolute, complete failure." The participants, those powerless and waiting for broadband connection, point their fingers at county government leaders, those in positions of power. This is an unmistakable example of "temporal domination" (Reid, 2014).

The wait for connection is even more frustrating for those who previously had a connection. About 10 years ago, Kimberly, her husband and teenage daughter moved to Surry County from a metropolitan area. Comparing it to Surry County, Kimberly said the metro area was the "land of on-demand full-time fast food and internet" with "lightning fast WiFi" at their previous home. Without such comforts, Kimberly said her daughter's "life was over." At the time of the interview, Kimberly still did not have a fixed broadband connection at her Surry County home. "You don't know how good you have it until it's gone," she said. "I didn't realize until I couldn't access simple things, like being able to look up a recipe online. . . . There's things like that that you don't really think about that people do every day." Without a broadband connection, Kimberly relies on spotty Verizon cell signal, a Jetpack, and satellite internet.

I always laugh at people who come to my house. They react visiting me for the first time like I reacted when I first moved out here, "Oh my God, I can't call my mom and tell her I got here because I have no signal." I always say, "Welcome to the land that time forgot."

Kimberly said friends from her former metro neighborhood ask about life in her new rural environment. "How's the internet out there?" they ask her. "There is none," she responds. "There's nothing out here that even remotely resembles modern times as far as internet goes. I'm very much looking forward to RURALBAND actually hooking me up." Here, Kimberly clearly identifies a lack of "digital dignity" in Surry County, illustrating how county residents are not "just like everybody else" (Strover, 2019), or those with readily available broadband access.

Kimberly further described the helpless feeling of waiting, actually watching the painfully slow progress toward connection. "My wire has been in the ground for probably a little

over a month,” she said. “A couple people down the road from me, their wire has been in the ground for over six months, and they’re still waiting to be hooked up.” Martin said RURALBAND officials “put the flags down our street a few weeks ago,” but he is still waiting for a connection. “That kind of made it worse,” he said. “When I saw the flags go in . . . I was like, ‘This is it. We’re getting it.’ And it’s just been sitting there more and more. It felt like a tease.” Added Betty: “People have signed up, and they’re waiting months for them to get around to connecting them. It takes months for you to get hooked up.”

Carl grew up in Surry County without a fixed broadband connection. Now in his mid-40s with son and daughter, Carl explained the absolute excitement of the day he learned his family’s home was about to gain a fixed connection. “I’ll tell you, the night that I knew they were coming to hook it up, I was like a kid on Christmas Eve,” Carl said. Carl, who works at the local nuclear power plant, said he has friends who live just five miles away who are not connected. With the fixed connection, Carl now is the one who hosts gatherings with friends. “Say a Friday night, we’re grilling out and you can play music without any buffering and stuff,” he said. “It’s amazing. Like I said, it made me all giddy inside the night before.” This “giddy” account shines a lot on the disparities of those who do not have such luxuries at home.

Linda said her family was “fortunate because we were among probably the first wave to get it.” Linda, though, later wanted to amend her word choice. “I don’t know if fortunate is the right word. I feel current,” she said. “I just feel like it’s a utility. I don’t say I am fortunate to have plumbing. To me, it’s not, because that should just be a standard.” Betty was still waiting for her connection at the time of her interview. Her sister, also in the county, was connected. “They were one of the first to get hooked up,” Betty said. “They really love it.” Betty, who was relying on Verizon signal and hotspots, also has a brother, who lives in New York and has broadband connection. “He said, ‘Unless it’s wired to your house, your solution is not a great solution,’” Betty said.

This participant knows, eventually, she will obtain that “great solution,” but the resolution’s timing is unknown. For years, residents were powerless, waiting for county leaders to find a broadband solution. Now, residents continue their “chronic waiting” as they wait their turn to gain a connection. Residents are oblivious to the length of their waiting, have no understanding of the status of progress and have no control of the situation.

Waiting while using the internet

Residents without broadband connections rely on cellular service (including hotspots) or satellite internet. As noted, fixed broadband and mobile broadband are not interchangeable (Grubestic & Mack, 2017). These alternatives reliably result in unreliable service, constructing considerable wait time for buffering, lag, and downloads and uploads. If waiting for a connection reflects the lived realities of unconnected rural Americans, waiting for a webpage to load reflects the lived realities of underconnection—a relatively unexplored area of digital divide research. Such waiting illustrates “technical delays,” or forms of “technology-induced waiting” (Sebald, 2020, p. 11). This technology-induced waiting is the “difference between the expected error-free, smooth functioning of the technical infrastructure and its actual occurrence” (Sebald, 2020, p. 11).

Kimberly, who moved from a metro area to Surry County, said she is, in some ways, envious of longtime Surry County residents. “I sometimes think some of my neighbors that aren’t used to quick internet are at a luxury. That it’s the ignorance is bliss thing. . . . I’ve had fast so I know how slow my internet is.” Residents with satellite service must wait out bad weather for a signal. “It’s both slow and spotty,” Justin said of service. “It’s pretty much based on the weather. (If you have) satellite internet and it rains, well, you have no satellite internet.” Bad weather also impacts service “if you’re getting your internet over your phone,” Betty said.

Waiting for entertainment—television shows, movies, video games, etc.—to stream was a great source of anguish for participants, especially parents. Frankie said her internet service, based from hotspots, is “not what we need. . . . With all the kids running their tablets nonstop, . . . it buffers a lot.” When Kimberly and her family moved to Surry County, it was a “very, very, very hard adjustment for us to make.” Previously, entertainment was taken for granted, but, in the new rural home, “we couldn’t watch videos.” David was extreme in the assessment of streaming entertainment.

If you want to try to stream video and watch a movie, forget it. You can’t stream video. You’ll be watching, and then your screen will go blank, and there’ll be a thing that says “downloading.” Then two minutes later, your movie comes back up again. Then you watch it for another four minutes, and then boom, and it’s the clock’s running.

Though lasting just seconds, latency or data lag, was an annoying source of waiting for participants. This is an example of technology-induced waiting (Sebald, 2020). “The latency is unbelievable,” David said. “You request something from the site, three seconds later you get it. It’s crazy.” David uses cellular-based internet service. “You can’t even use it for zoom,” he said. “You can’t see the people’s lips moves. It’s trash.”

The inability to participate in video meetings can be detrimental in professional life. Amy, an African-American mother of three, is an active community member. “I have a lag time,” Amy said. “If I want to speak, it’s way behind for me actually talking. It’s kind of like when I went to a meeting, if I’m at home using my home internet, I almost know that I don’t need to say anything.” Put another way, residents were silenced by waiting.

While waiting for buffering or downloads, participants divert their attention from the waiting, making it more tolerable. Martin, a mid-30s freelance writer, suffers routine frustrations while trying to submit content on deadline. During a time of buffering, he said he will “try to distract myself” and “try not to think about it.” He said that “staring at the screen,” while waiting for the buffering, is “not good for my mental state.” Martin acknowledged that it is “ridiculous to get so emotionally reactive to a piece of technology that does not care at all about my emotional reaction to its functionality,” but he can’t help it. Distraction is not an option when on a deadline.

If I’m trying to submit something and there’s a deadline coming up and I’ve got like two hours to submit something and I can’t get (Google) Drive to load my project or download it to my computer, and then I finally get it downloaded and then I have to re-upload it. I can’t distract

myself from that. That's when I get actually worked up. It's just kind of this seizing irritation.

Martin further described this “seizing irritation” while waiting for a document to upload. He said, normally, he is a calm person, but in situations like that, he loses his cool. “Not yelling, but speaking at my computer like, ‘Load! Come on f—, just load!’” he said. “There this kind of toe-tapping, like, ‘Come on, come on, come on.’ Hopelessness.”

This sentiment of “hopelessness” is pervasive in the rural county, as residents wait for a file to upload, for a useable cellular signal or for a video lag. These examples of “technology-induced waiting” (Sebald, 2020, p. 11) demonstrates that waiting is out of the residents’ control. They even have to wait out bad weather for service. This waiting, as noted by O’Brien, “reeks of helplessness” (1995, p. 177), as residents often cannot do anything to avoid the waiting.

Waiting for a better connection

At times, residents, unnerved by unreliable cellular service or satellite signal, took an element of control of their trying situations—by choosing alternative forms of waiting. Instead of waiting for a slow signal, residents drive to a different location for a better connection or wait until the middle of the night to watch entertainment. And, instead of waiting on streaming videos, they download them in advance and wait to watch at a later time. “Over the years, we got better at being a little more understanding and patient,” Kimberly said. “It took probably a good three years before we could, ‘Okay, well, we’re going to be downloading this movie so we can watch it later.’” David said using this tactic to avoid buffering is the only way to make entertainment enjoyable. “You have to download it and watch it later,” he said. “That sounds like a miniscule issue, but it’s a frustration.”

Some county facilities, including the library and government office, offer broadband connections to residents. “You’ll have the government center, which is pretty much the hub” of the county, Justin said. “They have high-speed internet in there. That’s seven miles in one direction from us.” Justin will wait while driving for a better connection. One resident was forced to make a similar drive to a nearby town outside of the county, waiting to learn more about a potential life-or-death situation. As a hurricane approached the Atlantic Coast, Kimberly suffered from extraordinary poor cellular signal at her house. “My signal was so slow that I couldn’t get to anything fast enough to see what was happening,” Kimberly said. She drove to a clear spot, a parking lot of a Family Dollar about seven miles from her house. “I sat in my car with my laptop hooked to the hotspot on my cell-phone to see what was going on. . . . I spent probably five hours in my car.”

The most unconventional tactic for a better connection was to wait for the hours between midnight and 5 a.m. These hours were described as a “free zone” for those with data caps and faster service. Participants said, with less demand on the service, a cellular signal was faster in the middle of the night. For Martin, the flustered freelance writer, the late-night hours were a matter of entertaining convenience.

I will probably sleep until 11 and then stay up until 3 or 4 o’clock in the morning and do it all over again. It is not like consciously because of the internet, but, I mean, that’s what I was doing at night. That’s what was keeping me

awake, was like, “Oh, I finally have this.” It wasn’t a choice that was based on internet activity, but more caused by it.

It was more of a strategic choice for Kimberly and her family, including her teenage daughter. They became a “second-shift family,” often sleeping at unconventional hours in order to be awake and use faster connection during the middle-of-the-night hours. During the school year, Kimberly’s daughter would get home, do her homework, eat dinner, and then go to bed around 7 p.m.—“just to wake up at 3 in the morning. She would lay there from 3 to 6 or whenever she was going to get up to school and watch movies or videos.” During the summer months, “she figured out very quickly that I didn’t care if she slept all day, so she would stay up all night so she could watch movies,” Kimberly said. Eventually, Kimberly said her and her husband followed the daughter’s lead. Kimberly certainly understands how strange this is to outsiders.

Most of our friends thought we were crazy. I ended up becoming friends with a lot of gamers that I worked with because . . . they were up gaming all night. They would be messaging me in the middle of the night, and I’d be answering them. They’re like, “You’re old; you should be asleep.” I’m like, “No, this is the only time I can get good internet.”

Kimberly has settled into the rural area, but the first few years were difficult and prompted plenty of second-guessing about the move from a metropolitan area with reliable internet service. “If I had known that I’d have absolutely no signal out here and no way to get to the internet, I might have rethought my choice,” she said.

Often confronted with a lack of command of their waiting, residents at times take steps—even drastic measures—to regain control of the difficult situation. Waiting until the middle of the night for a better signal might sound “crazy” to many, but the decision is more than understandable. Downloading movies — instead of simply streaming content — was a common tactic among participants. Free of “technology-induced waiting,” such as buffering (Sebald, 2020), the downloaded movies are classic instances of how participants wait in other ways for entertainment. The time invested to make a drive for reliable internet service, certainly, is time residents would rather spend doing other things. These examples of waiting, as Vanstone (1982) identified, illuminate participants’ wants and needs. These examples of waiting, again, demonstrate that those in Surry County are absent “digital dignity,” or a sense of feeling “just like everybody else” (Strover, 2019).

Discussion

This article argues that waiting is central to the lives of those without fixed broadband connection. Residents suffer from “chronic waiting” (Jeffrey, 2008) for connection. At the time of these interviews, the county in this case study was in the process of establishing home broadband connection for residents. This journey to connection, however, was more than a decade long and filled with repeated starts, stops, and disappointments. Participants were never given a timeframe for connection and, thus, had no idea when their waiting would end. Many people in rural communities must wait for

important goods and services from government entities (Hite, 1997). Broadband access must be included in that discussion.

One participant in this study said the situation was “just absolute, complete failure” on the part of governmental leaders. The study’s participants were victims of what Reid (2014) identified as “temporal domination.” To be sure, this case study demonstrates the connection between waiting and power (Schwartz, 1974; Bourdieu, 2000), with residents powerless to end the waiting dictated by the powerful. In our study, the powerful include internet service providers who refuse to connect the county or who keep the county in a state of mobile underconnection. Powerful actors also include policymakers who have been slow to recognize and resolve the digital divide in the United States (Grubestic & Mack, 2017; Crawford, 2019; Ali, 2021).

We found that, without broadband, residents relied on cellular service (including hotspots) or satellite for internet connections. Researchers have argued that fixed broadband and mobile broadband are not interchangeable (Grubestic & Mack, 2017). The unreliable mobile service led to participants waiting for buffering, video lag, and downloads and uploads. This waiting is out of the participants’ control, even sometimes caused by Mother Nature. In order to avoid this “technology-induced waiting” (Sebald, 2020, p. 11), participants choose alternative modes of waiting. This includes downloading entertainment, instead of streaming, and waiting to watch later, or, more drastically, becoming a “second-shift” family and enjoying entertainment in the middle of the night. These cases of waiting demonstrate just how important the results of waiting are to people (Vanstone, 1982). More than this, however, it demonstrates just how far the digital equity movement still has to go to meet their goal of a digitally equitable United States.

This article details the ramifications and lived experiences of those suffering from a lack of “digital dignity” (Strover, 2019), which highlights the distinctions between those who have a connection and those who are still waiting for a connection or waiting as a result of underconnection. “Digital dignity” describes the idea of feeling “just like everybody else.” Those at the center of this study, those waiting without a fixed broadband connection, do not feel just like everybody else those blessed with a high-speed connection. One participant moved from a metro area—a “land of on-demand full-time fast food and internet”—to the rural county without the comfort of a fixed broadband connection. This participant clearly comprehends the indignity of waiting for a familiar luxury, one her former metro neighbors know well. When her friends visit her rural home, and almost immediately inquire about broadband connection, she replies, “Welcome to the land that time forgot.” The participant’s time is spent waiting.

By definition, digital equity as a normative goal goes hand in hand with digital dignity as a phenomenological state. Both have been denied to residents of Surry County. What is perhaps almost worse is that the promise of connectivity or enhanced connectivity, as the case may be, underscores the powerlessness of residents and the uneven temporal domination of those in power toward those without. For those with the means to do so, they may purchase their way out of waiting by adding another subscription or a hotspot or maxing out their mobile data. These tactics, however, only take a user so far. No amount of personal wealth can summon broadband into existence if the infrastructure is lacking.

Temporally speaking, both the daily and the future combine into the aforementioned condition of “chronic waiting.”

Both digital equity and digital dignity are about everyday practices of contemporary life in the United States. While digital users take checking their emails, uploading files, and streaming Netflix for granted, others know of this level of connectivity but find it beyond their grasp. This is a powerful lesson for both those in the digital equity community to contemplate not only the promise of connectivity, but the speed of articulating such a promise in their advocacy work. It will also benefit those studying the qualitative, even phenomenological aspects, of the digital divide, adding much-needed lived experience to a scholarly enterprise dominated by quantitative assessments and policy critique.

This article has its limitations. Most notably, it is a case study based on 19 interviews with participants in a small, rural county. The findings, thus, are not generalizable. However, while these findings are distinct to one county, the political economic situation producing the waiting is not. Research has suggested that more than 40 million rural Americans lack access to broadband, and, even when they have access to broadband, they pay drastically more than urban counterparts (BroadbandNow, 2019). Additionally, this study’s participants were not representative of the county, especially the gender breakdown (12 females, 7 males). However, the participants’ stories offer a view into the intersection between waiting and a lack of fixed broadband connection. Ultimately, this paper’s most valuable contribution is a “temporal awareness” (Sharma, 2014) of those without broadband connection, shining a light on the lived experiences of the powerless waiting to connect and concluding that waiting is, indeed, unavoidable.

Data availability

The data underlying this article cannot be shared publicly due to university IRB protocols, which highlight the importance of privacy of individual participants in this study. The data will be shared on reasonable request to the corresponding author.

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Appendix A

Name	Gender	Race	Age	Education	Fixed connection
Amy (1)	Female	Black	35–54	Masters	No
Betty (22)	Female	White	55+	Bachelor	No
Carl (25)	Male	White	35–54	Some college	Yes
David (29)	Male	White	55+	Masters	No
Emily (5)	Female	Black	35–54	Some college	Yes
Frankie (33)	Female	White	18–34	Some college	No
Gary (34)	Male	White	18–34	Bachelor	No
Harry (27)	Male	White	55+	Masters	Yes
Isabelle (31)	Female	White	35–54	Masters	No
Justin (19)	Male	Black	35–54	Some college	No
Kimberly (35)	Female	White	35–54	Bachelor	No
Linda (36)	Female	White	35–54	Doctorate	Yes
Martin (37)	Male	White	35–54	Some college	No
Nancy (17)	Female	Asian	18–34	Bachelor	No
Olivia (3)	Female	White	55+	Bachelor	No
Paul (26)	Male	White	35–54	Bachelor	No
Quincy (6)	Female	White	35–54	Bachelor	No
Rita (13)	Female	White	55+	Associate	No
Sarah (28)	Female	White	18–34	High school	No