

Examining Factors Associated With Facebook Use Among Sheltered Homeless in Hawai'i

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Facebook has great potential to improve the lives of socially vulnerable populations such as homeless individuals. Yet little research has examined factors associated with Facebook use among homeless individuals. To address this research gap, we conduct a quantitative survey among 148 homeless individuals in Hawai'i to examine how Facebook use (vs. nonuse) is associated with demographic characteristics, social capital levels, cell phone use, and instrumental uses of the Internet. Results showed that homeless Facebook users are more likely to be younger and female as compared with nonusers. Homeless Facebook users also exhibited significantly higher levels of bonding social capital than did nonusers. Also, homeless Facebook users were more likely than nonusers to use the Internet to search for jobs. Finally, Facebook users were significantly more likely to have their own cell phones, access the Internet from their cell phones, and be heavier cell phone users than Facebook nonusers. Implications of these findings are discussed.

Keywords: Facebook, homeless, social capital, ICTs

The rising and visible homeless population represents one of the most important social issues facing Hawai'i today. Recent news reports have placed great emphasis on the homeless problem in Honolulu. In Hawai'i, there were 15,627 homeless individuals that accessed homeless services through Shelter and Outreach Programs in 2017 (Yuan & Gauci, 2018). More than one-third (37%) were members of households

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with children under the age of 18. Given the dependency on tourism for the Hawaiian economy, government officials have responded by cracking down on the problem (Nagourney, 2014).

There is growing interest in studying the use of ICTs among homeless individuals. Early research on information technology use by the homeless focused mainly on information attitudes or acquisition (Hersberger, 2002; Miller, Bunch-Harrison, Brumbaugh, Kutty, & FitzGerald, 2005). Subsequent studies examined how ICT use among homeless individuals correlates with life outcomes (Eyrich-Garg, 2011; Guadagno, Muscanell, & Pollio, 2013; Rice, Kurzban, & Ray, 2012). In particular, scholars expressed optimism that ICTs such as Facebook can help to cultivate resources (Ellison, Steinfield, & Lampe, 2011; Steinfield, Ellison, Lampe, & Vitak, 2013) that are instrumental in helping homeless individuals become gainfully employed (Lin & Erickson, 2008). This study addresses the dearth of research on Facebook use among homeless individuals by examining whether there are differences in demographic characteristics, social capital levels, and technology use patterns between homeless Facebook users and nonusers in Hawai'i.

Defining Homelessness

Homelessness is an issue of poverty, housing, job skills, and health care (Miller et al., 2005). According to the United States Department of Housing and Urban Development (2018), a person who lacks a stable or sufficient nighttime place to live is considered homeless. Yet homelessness definitions vary among governments, charities, and advocacy groups (Farrugia & Gerrard, 2016).

Homelessness in Hawai'i

Among all states, Hawai'i currently has one of the highest homelessness rates (46 homeless people for every 10,000 individuals), exceeded only by the District of Columbia (Henry et al., 2018). Furthermore, more than one-third of Hawai'i's homeless are families with children (Henry et al., 2018). In 2016, a Point-In-Time count showed a total of 7,921 homeless individuals resided in Hawai'i (Partners in Care, 2017). Native Hawaiians and other Pacific Islanders comprise the largest percentage of homeless households on Oahu (Partners in Care, 2017). The majority of homeless individuals reside in Honolulu (Nagourney, 2014).

Because of steadily rising housing costs and the erosion of residential housing to luxury housing and resort space, homelessness is the norm in Hawai'i (Modell, 1997). Hawai'i has a low unemployment rate, high median income, a growing tourist industry, and a strong financial sector (Hoopes, 2018). However, Hawai'i has large disparities in wealth and income and a resident population facing a harsh economic reality. A 2017 United Way ALICE report found that 48% of households in Hawai'i struggle to support themselves. These struggling households are considered "housing burdened" and are more likely to face financial constraints, forgo essential needs, and be more susceptible to eviction and foreclosures (Hoopes, 2018). Some 55% of renters in metro Honolulu are housing cost burdened, with 26.7% being severely housing cost burdened (Salviati, 2019). The United Way ALICE report concludes that affordable housing will continue to be a pressing social concern due to tourism vacation rentals driving up housing costs, millennials and seniors flooding the low-cost home and rental market, and housing supply limited through geography, economics, and zoning regulations (Hoopes, p. 81; see also Callies, 2010).

Furthermore, Hawai'i has a tropical climate and liberal public benefits laws that bring homeless individuals from the U.S. mainland and Micronesia (Watson, 2010, p. 128). News reports have suggested that the tropical temperatures make it easier for homeless individuals in Honolulu to live outdoors or in transient shelters instead of looking for permanent housing, and 1 in 10 are recent arrivals (Blair, 2019). Hawai'i's remote location, coupled with high costs associated with air travel (Department of Commerce and Consumer Affairs, 2012), might make homeless individuals particularly dependent on social networking sites such as Facebook to maintain and establish social ties.

Native Hawaiian Homelessness: A Colonial Legacy

Homelessness is part of Hawai'i's colonial history. In 1898, five years after the Hawaiian monarchy was overthrown by self-interested businessmen supported by armed troops of the U.S. Marines, Queen Liliuokalani (2013) noted the "homeless condition of the Hawaiians at the present day" (p. 7). Native peoples, such as the Kanaka Maoli (original Hawaiians), view land as a "living entity that enables Indigenous life" (Teves, Smith, & Raheja, 2015, p. 59). In the mid-1800s, the privatization of land and large-scale agriculture played key roles in Native Hawaiian dispossession of land (Kelly, 2014). By 1888, Native Hawaiians lost 75% of their arable land (Trask, 1999). At the same time, Native Hawaiian kinship systems, closely tied to land and community, were undermined by foreign diseases leading to rampant death and infertility, drastically reducing numbers in the Hawaiian population. The separation of Native Hawaiians from their land represents a separation of their families and their sense of community. These aforementioned political and economic forces removed the locals from their lands and placed housing beyond their reach. Thus, many Native Hawaiians prefer to describe their living context as houselessness, not homelessness (Kelly, 2014; Modell, 1997). The concept of "home" is intertwined with *ohana* (family) and is best understood as social and cultural values with the land in indigenous terms (Lyons, 2011).

Native Hawaiians' claims to ancestral lands are almost always contested by federal, state, and local governments. The difficult economic conditions have created a poverty industrial complex, requiring an active resolve to persevere (Kelly, 2014). Native Hawaiians who choose to be houseless are viewed as either being squatters or as making a lifestyle choice. In either scenario, mainstream media plays on the fear and disdain of poverty to frame homelessness as an individual fault rather than a societal one (Schneider, 2012). "Squatters" represent the "perfect villains for the average struggling Hawai'i resident" (Niheu, 2014, p. 175). In Hawai'i, the emergence of blogs and social media have promoted an effective independent voice to encourage an innovative, future-looking native peoples (Kuwada, 2015) that enable Kanaka Maoli to control their own narrative (Watson, 2020). Homeless voices are notably absent in mainstream media representations of the homeless condition (De Oliveira, 2018). In Hawai'i, social media represent a space where houseless and homeless voices can be heard.

The Significance of Facebook

With the vast majority (90%) of Americans having access to the Internet (Anderson, Perrin, Jiang, & Kumar, 2019), digital-divide researchers shifted their attention from Internet access to indicators of the second-level divide (DiMaggio, Hargittai, Celeste, & Shafer, 2004), by investigating the multiple factors that predict the use of the Internet for life outcomes (Buente, 2015; Hargittai & Hinnant, 2008). As noted by Helsper

(2012), "offline inclusion should be the starting (and end) point for thinking about digital inclusion" (p. 413). Homeless individuals represent one of the most socially excluded, stigmatized and resource-poor populations in recent memory (e.g., Phillips, 2015; Schneider & Remillard, 2013). Therefore, questions about access to the Internet and social media become particularly relevant, given their extensive resource limitations.

Although homeless individuals are often thought of as being resource poor, research indicates that ICTs are a necessary aspect for navigating the homeless condition (McInnes, Li, & Hogan, 2013; Sala & Mignone, 2014). Homeless individuals appropriate ICTs for myriad social functions, such as social connectedness, identity management, and instrumental purposes, and ICTs enable such individuals "who are largely excluded from society to feel validated through what they perceive to be a normative use of technology" (Sala & Mignone, 2014, p. 58).

In the United States, Facebook is the most widely used social networking platform (Perrin & Anderson, 2019). Although Facebook was established with the purpose of sustaining ties with known others, people are increasingly using Facebook for instrumental purposes, such as job searches and establishing ties with new people (e.g., Ferris & Hollenbaugh, 2018). With Facebook's potential to improve the lives of the homeless, this study thus examines whether homeless Facebook users and nonusers exhibit differences in terms of demographics, social capital levels, and patterns of technology use.

Comparing Demographic Differences Between Homeless Facebook Users and Nonusers

Thus far, few studies specifically examined demographic differences between homeless adult Facebook users and nonusers. It is crucial to assess demographic characteristics associated with Facebook use specifically among the homeless because the demographic characteristics of homeless individuals who use ICTs might differ from those observed within the general population (e.g., Rhoades, Wenzel, Rice, Winetrobe, & Henwood, 2017).

Generally speaking, Facebook users are more likely to be younger than nonusers (e.g., Hayes, van Stolk-Cooke, & Muench, 2015). Nevertheless, Facebook is also very popular among older adults. For example, 79% of adults 30–49 years of age and 68% of adults 50–64 years of age are Facebook users (Perrin & Anderson, 2019). This study thus gauges whether there are differences between Facebook users and nonusers among a broader age range of homeless adults.

Furthermore, nationally representative surveys indicate that females and those with higher levels of education are more likely to be Facebook users (Perrin & Anderson, 2019). It is possible for Facebook to be more popular among females because they are more likely than males to use technological applications for interpersonal rather than instrumental purposes (Muscanell & Guadagno, 2012). Also, it is understandable for education to predict Facebook use because of the literacy levels required to use this platform.

In Hawai'i specifically, research has suggested that underserved individuals such as Native Hawaiians are particularly unlikely to adopt and use ICTs (Connolly & Crosby, 2014). Furthermore, Native Hawaiians make up the largest percentage of homeless in Hawai'i (Lyons, 2011; Watson, 2010). The lack of Facebook

use could therefore be particularly pronounced among homeless individuals who self-identify as Native Hawaiians.

Thus, we pose the following research question:

RQ1: What are some demographic differences between homeless Facebook users and nonusers?

Comparing Social Capital Levels Between Homeless Facebook Users and Nonusers

Social capital is best understood as a multidimensional concept encompassing a set of positive outcomes resulting from accumulated resources derived from friends, family, or associates with a specific social context or social network (e.g., Lin, 2001). Social capital generally leads to positive life outcomes, such as gainful employment (Lin & Erickson, 2008), improvements in social status (Lin, 2001), and well-being (Adler & Kwon, 2002).

There are three main forms of social capital: bonding, bridging, and maintained (Ellison, Steinfield, & Lampe, 2007). Bonding social capital is usually related to homogenous groups, such as family and close friends, and corresponds with strong ties in social networks that rely on personal interaction and support (Ellison et al., 2011; Lin, 2001). In contrast, bridging social capital depends on heterogeneous groups and social acquaintances. Weak ties form the basis of bridging social capital, and it is best suited for sharing information resources, such as finding a job (Lin, 2001). As a result, bridging social capital is more likely to bring one to more diverse resources not available in their close social networks. Finally, people often move from one geographic location to another, making it a challenge to maintain ties from their existing social networks (Ellison et al., 2007). Maintained social capital thus refers to a person's ability to sustain connections with individuals from previous communities despite grappling with major life transitions (Ellison et al., 2007).

Scholars in various fields have applied the concept of social capital to homelessness. Homeless individuals live under immensely stressful conditions and often depend on ties within personal networks to acquire basic needs (Lee, Tyler, & Wright, 2010). However, these social ties can also produce negative outcomes if they primarily link to street peers and culture (Rice et al., 2012). For example, the homeless experience can encourage the downward leveling of norms within peer groups, encouraging solidarity grounded in the common experience of street life (Portes, 1998). Overall, social capital is considered one of the more important pathways to allow individuals to leave the homeless condition (Warren, Thompson, & Saegert, 2001).

Existing research suggests that homeless individuals reap different types of benefits from the various forms of social capital. For homeless youth, bonding social capital is vital for constructing familial-type relationships to replace limited or rejected social support from family, institution, and community resources (Stablein, 2011). Strong ties may form with social service staff who become akin to family or friends, but can also be sources of distrust (Oliver & Cheff, 2012). In a study of homeless social support and its effect on health, Hwang and colleagues (2009) determined that social support derived from family, friends, and neighbors as opposed to informal support (clergy or service providers) were more meaningful for health outcomes. Bridging social capital, referred to as "leveraging" through useful advice and information, can provide a leg up to additional resources (Irwin, LaGory, Ritchey, & Fitzpatrick, 2008).

Much of the existing research on social network sites and social capital center around college students. Although these studies have been very helpful, there is a need to examine social network sites in various topical contexts and with more diverse social networks among the general U.S. population (Baym, 2010; Ellison et al., 2011). Little work has examined how Facebook use (vs. nonuse) affects social capital formation among homeless adults. Rice and Barman-Adhikari's (2014) study used tie-based social capital measures drawing on two survey questions to operationalize bridging, bonding, and maintained social capital. These measures were based solely on the type of social tie indicated (e.g., parents, friends, caseworkers). For example, maintained social capital was operationalized as using the Internet to connect to home-based peers. Research on homelessness has provided more effective social capital measures, which we have incorporated into our study. For example, social support, as an indicator of bonding social capital, has proven to be a crucial resource for exiting homelessness (Lam & Rosenbeck, 1999; Shier, Graham, & Jones, 2010) or minimizing the negative consequences of street life (Oliver & Cheff, 2012). This study thus addresses gaps in existing literature by improving on previous measures of bonding, bridging, and maintained social capital used in studies on homelessness and social capital. We proposed the following research questions:

RQ2: Will homeless Facebook users exhibit higher levels of bonding social capital than Facebook nonusers?

RQ3: Will homeless Facebook users exhibit higher levels of bridging social capital than Facebook nonusers?

RQ4: Will homeless Facebook users exhibit higher levels of maintained social capital than Facebook nonusers?

Comparing Cell Phone Use Patterns Between Facebook Users and Nonusers

Cell-phone-based access of Web-based applications such as Facebook is becoming an increasingly popular activity. More than half of adult cell phone users have reported downloading the Facebook app and accessing Facebook from their cell phones (Silver et al., 2019). However, most studies on technology use among the homeless have examined Facebook use and cell phone use as separate outcome variables (e.g., Harpin, Davis, Low, & Gilroy, 2016).

More contemporary theorizations around the concept of physical access and the poor suggest that access to ICTs is more complex than previously observed. According to Gonzalez, Ems, and Suri (2016), the initial access to cell phones was less of an issue compared with the ability for individuals to maintain their cell phone connections. Thus, technology maintenance provides a framework to understand how continually maintaining cell phone connections bear significant economic and social costs. Later, Gonzales (2016) expanded technology maintenance beyond cell phones and situated it "amidst previous sociological theory on the digital divide and larger issues of social inequality" (p. 235). Among the poorest U.S. citizens, technology maintenance issues represent the dependable instability of Internet connections.

Homeless individuals have slightly higher rates of Internet access on cell phones and similar rates of downloading cell phone apps as compared with the general population (Rhoades et al., 2017). Given the transient nature of homeless individuals, cell phones could be particularly convenient and appealing devices for accessing and using Facebook as compared with traditional computers. Similar to Facebook, cell phones

are particularly suited to helping homeless individuals forge new connections and maintain existing relationships with known others (Rice, Lee, & Taitt, 2011). As such, it is plausible that homeless Facebook users are heavier cell phone users and more likely to access the Internet from a cell phone than Facebook nonusers are. Furthermore, people who own cell phones have greater privacy and latitude to have intimate interactions with others on Web-based applications such as Facebook than those who do not have personal cell phones (Campbell, Caine, Connelly, Doub, & Bragg, 2015). We hypothesize that:

H1: Homeless Facebook users are more likely to be heavier cell phone users than are Facebook nonusers.

H2: Homeless Facebook users are more likely to access the Internet from a cell phone than are Facebook nonusers.

H3: Homeless Facebook users are more likely to report having their own cell phone than are Facebook nonusers.

Comparing Web Skills and Internet Use Patterns Between Facebook Users and Nonusers

Scholars have devoted a considerable amount of effort toward developing nuanced second-level digital-divide measures to understand how people use the Internet effectively and efficiently (e.g., Hargittai & Hsieh, 2012; Litt, 2013). Litt (2013) found that Internet skills were significantly associated with content creation and sharing (Correa, 2010), breadth and depth of online engagement (Livingstone & Helsper, 2010), and capital-enhancing activities such as looking for news, health, and financial information (Hargittai & Hinnant, 2008). Furthermore, Litt (2013) argued for examining Internet skills beyond student populations to diverse subpopulations (p. 625). Research has shown that the relationship between media experience and ICT adoption in rural communities is augmented by Internet-use skills (Yu, Lin, & Liao, 2017). These studies collectively suggest that Internet skill levels will be higher among homeless Facebook users than nonusers.

H4: Homeless Facebook users will exhibit significantly higher levels of Web skills than will Facebook nonusers.

Furthermore, there has been considerable interest on how homeless individuals use ICTs for instrumental purposes such as searching for jobs and housing (Eyrich-Garg, 2011; Rice & Barman-Adhikari, 2014). Rice and Barman-Adhikari (2014) examined whether Internet use frequency, broadly speaking, was associated with the likelihood of using the Internet to search for jobs and housing. Eyrich-Garg (2011) determined that participants used computers to maintain or increase social connectedness, conduct personal business, and pursue leisure activities (p. 299). The author concluded that further work is needed because computer technology use among the street homeless is a "fairly unexplored phenomenon" (p. 301).

Facebook content often contains hyperlinks to myriad external websites that could provide further essential information about jobs or housing. Homeless Facebook users would therefore be able to navigate away from Facebook to access such vital online resources. Given that homeless Facebook users are more likely to have higher levels of Web skills than nonusers, we hypothesize that homeless Facebook users will be more likely to use the Internet to search for jobs and housing than will homeless Facebook nonusers:

H5: Homeless Facebook users will be significantly more likely to use the Internet to search for jobs than will homeless Facebook nonusers.

H6: Homeless Facebook users will be significantly more likely to use the Internet to search for housing than will homeless Facebook nonusers.

Method

We conducted survey interviews with 150 guests at two homeless shelters (men and women and children) in Honolulu. Following Stennett, Weissenborn, Fisher, and Cook's (2012) approach, we recruited and interviewed participants primarily during free meal times. Respondents were provided a \$10 gift card to either Kmart or Walmart for participating in our survey. Unlike much of the previous research on the homeless and ICTs, our sample is older, with 68% of the respondents being over 40 years old. Though we surveyed respondents on several topics related to ICTs and homelessness, we only report results of interest for the theme of this article. In total, 148 usable surveys were obtained. This number is comparable to the number of study participants in previous quantitative, cross-sectional surveys of homeless individuals (e.g., Castro et al., 2014; Eyrich-Garg, 2011). Key demographics of homeless individuals from the homeless shelter are reported in Table 1.

Table 1. Key Demographics for Homeless Individuals Among the Pooled Sample (N = 148).

Variable	Frequency	Percentage (%)
Demographics		
<i>Gender</i>		
Female	68	46
Male	80	54
<i>Age (years)</i>		
18–21	9	6.1
22–25	5	3.4
26–30	9	6.1
31–40	24	16.2
41–50	36	24.3
51–60	50	33.8
60 and over	15	10.1
<i>Education</i>		
Less than high school	27	18.2
High school graduate	64	43.2
Some college	46	31.1
College educated	11	7.4
<i>Ethnicity</i>		
Hawaiian	47	31.8

Measures

First, factor analyses on the social capital items using varimax rotation yielded four distinct factors. The bridging and maintenance social capital items mapped onto the respective social capital subscales used in Ellison et al.'s (2007) study. However, the bonding social capital items adapted from Ellison et al. (2007) were split into two factors. Notably, the reverse-coded items loaded onto a different factor than the other three items. Subsequent reliability analyses showed that the reverse-coded items did not load well with the remaining three items and were dropped from the overall bonding social capital scale (see Table 2 for details).

Three items such as, "If I needed an emergency loan of \$100, I know family members, friends, or neighbors that I can turn to," were modified from Ellison et al.'s (2007) study to gauge respondents' levels of bonding social capital.

Bridging Social Capital

Four items such as, "I feel I am part of the Honolulu community," were modified from Ellison et al.'s (2007) study to gauge bridging social capital. These items were measured on 5-point (1 = *not likely at all* to 5 = *very likely*) scales.

Maintained Social Capital

As with the measures of bridging and bonding social capital, four items such as, "If I needed to, I could ask a friend or association from home (before you came to the shelter) to provide food for me," were modified from Ellison et al.'s (2007) study to gauge maintained social capital. These items were measured on 5-point (1 = *not likely at all* to 5 = *very likely*) scales. Descriptive statistics of the social capital subscales are reported in Table 2.

Internet Use

Participants indicated their Internet use frequency on a single item measure ("How often do you use the Internet?") measured on a 6-point scale (1 = *never* to 6 = *more than an hour per day*). Certain analyses examining the relationship between Facebook use and various online activities, focused on Internet users (i.e., individuals who indicated a value of 2 or higher on this scale; $n = 102$).

Table 2. Factor Analysis and Summary Statistics for Social Capital Items (N = 144).

Items	Factors				Mean	SD
	1	2	3	4		
Bonding social capital (Cronbach's α for 5-item scale = 0.63; 3-item scale without reverse-coded items = 0.76)					3.11 ²	1.23
If I needed an emergency loan of \$100, I know family members, friends or neighbors that I can turn to.	.792				3.24	1.54
If I needed a ride to a doctor's appointment, I know family members, friends, or neighbors that I can turn to.	.842				2.76	1.48
If I needed help with suicidal or depressive feelings, I know family members, friends, and/or neighbors that I can turn to.	.665				3.35	1.48
I do not know homeless service providers well enough to get them to do anything important. ¹		.853			3.42	1.30
I do not know homeless individuals well enough to get them to do anything important. ¹		.801			3.08	1.41
Bridging social capital (Cronbach's α = 0.81)					3.65	0.93
I feel I am part of the Honolulu community.			.826		3.57	1.18
Interacting with people in Honolulu makes me feel like I am part of a larger community.			.808		3.52	1.17
I am willing to spend time to support Honolulu community activities.			.769		3.81	1.12
Interacting with people in Honolulu reminds me that everyone in the world is connected.			.733		3.74	1.15
Maintained social capital (Cronbach's α = 0.78)					3.32	1.03
If I needed to, I could ask a friend or association from home (before you came to the shelter) to provide food for me.				.631	3.44	1.38
If things got really bad, I could ask a friend or associate from home (before you came to the shelter) to let me stay at their place for an extended visit.				.661	2.91	1.41
Keeping in touch with friends and associates from home (before you came to the HIS shelter) makes me realize things do get better.				.799	3.59	1.20
I would be able to find information about a job or internship from a friend or associate from home (before you came to the shelter).				.787	3.35	1.33
Eigenvalue	1.92	1.14	4.18	1.41		
Percentage of variance explained	14.7%	8.8%	32.1%	10.9%		

Note. Scale ranges from 1 (*not likely at all*) to 5 (*very likely*). Factor analysis applied varimax rotation.

¹Indicates item is reverse coded.

²Mean and standard deviation for the three-item bonding social capital scale.

Bonding Social Capital

Internet Skills

Internet-use skill was measured using a total of 14 items asking respondents about the degree to which they were familiar with certain terms (e.g., PDF, RSS) on 5-point (1 = none to 5 = full) scales, which were then combined to form a composite scale ($M = 2.22$, $SD = 1.23$; Cronbach's $\alpha = 0.94$; see Table 3). They were adapted from Hargittai and Hsieh's (2012) Internet-use scale tailored for less skilled Internet users.

Table 3. Descriptive Statistics and Exact Wording for Facebook Use, Internet Skills, and Cell Phone Use and Access Variables Among Pooled Sample.

Variable	
Internet skills (Cronbach's $\alpha = 0.96$)	
Mean	2.22
SD	1.29
Facebook and cellphone use	
	Percentage (%)
Facebook use frequency ($N = 148$)	
Never	53.4
Less than once a week	7.4
About once a week	3.4
Once every couple of days	12.2
Once a day	8.8
Several times a day	14.9
Cell phone use frequency ($N = 148$)	
No cell access	12.2
<Once a week	8.1
Once a week	4.7
Once every couple of days	6.1
Once a day	6.8
Several times a day	62.3
Cell phone ownership ($N = 148$)	
No cell	12.8
Borrow cell	5.4
Share cell	2.0
Have cell, no minutes	8.8
Have own cell	70.9

Facebook Use

A single item measure, "How often do you use social networking sites such as Facebook?" gauged Facebook use on a 6-point scale (1 = *never* to 6 = *several times a day*). Seventy-nine individuals (53.4%) never used Facebook, whereas the remaining individuals ($n = 69$; 46.6%) reported varying degrees of Facebook use. Next, we created a dichotomous variable in which Facebook nonusers were coded as 0 and Facebook users were coded as 1.

Cell Phone Ownership

One question, "Right now, check the sentence that best describes your cell phone access?" gauged cell phone ownership (see Table 3 for details). Next, we created a dichotomous variable whereby those who indicated "no cell," "borrow cell phone," or "share cell" were coded as 0 ("did not have their own cell phone"; $n = 30$, 20%), and those who reported "having own cell" or "having a cell phone with no minutes" were coded as 1 ("having their own cell phone"; $n = 118$, 80%).

Cell Phone Use Frequency

Cell phone use frequency was measured with one item, "How often do you use a cell phone?" on a 6-point scale (1 = *no cell access* to 6 = *several times a day*; see Table 3 for descriptive statistics among the pooled sample).

Key Online Activities

Respondents were asked about the type and frequency of engaging in certain key online activities such as searching for jobs and finding housing (see Table 4).

Demographic Variables

Lastly, a standard set of demographic variables such as gender, age, education, and ethnicity were measured. Age and education were treated as ordinal variables in subsequent analyses of the differences between Facebook users and nonusers.

Table 4. Descriptive Statistics and Exact Wording for Online Activities Variables Among All Internet Users (N = 102).

Variable	Percentage (%)
¹ The last time you got online, what did you do? (N = 102)	
Check for jobs	52.9
Look for housing	40.2
¹ Where do you go to get online? (N = 102)	
My cell phone or other mobile device	54.9
How often do you actively use job search forums (i.e., Craigslist)? (N = 102; M = 2.82, SD = 1.73)	
Never	31.3
< Once a week	21.6
Once a week	7.8
Once every couple of days	22.5
Once a day	5.9
Several times a day	10.8
How often do you search for housing options online? (N = 102; M = 2.56, SD = 1.75)	
Never	43.1
< Once a week	16.7
Once a week	8.8
Once every couple of days	13.8
Once a day	7.8
Several times a day	9.8

¹ These items were measured on a dichotomous (0 = no, 1 = yes) scale.

Results

In terms of demographic differences between homeless Facebook users and nonusers (RQ1), independent-samples *t* tests showed that homeless Facebook users ($n = 69$; $M = 4.01$, $SD = 1.70$) were significantly younger than were Facebook nonusers ($n = 79$; $M = 5.70$, $SD = .87$), $t(98) = 7.44$, $p < .001$. Chi-square analyses also showed that 33% of the 80 homeless males were Facebook users as opposed to 61.7% of the 69 homeless females, $\chi^2(1, N = 148) = 11.6$, $p < .01$. However, there were no statistically significant differences in the education levels or ethnicity of Facebook users versus nonusers.

With regard to RQ2, independent-samples *t* tests showed that homeless Facebook users ($n = 69$; $M = 3.44$, $SD = 1.06$) had significantly higher levels of bonding social capital than did Facebook nonusers ($n = 78$; $M = 2.81$, $SD = 1.30$), $t(144) = -3.27$, $p < .01$. However, Facebook use was not associated with either bridging (RQ3) or maintained social capital (RQ4).

Next, independent-samples *t* tests showed that homeless Facebook users ($n = 69$; $M = 5.58$, $SD = 1.11$) were heavier cell phone users than were Facebook nonusers ($n = 79$; $M = 4.00$, $SD = 2.08$), $t(122.6) = -5.85$, $p < .001$, lending support to H1. Chi-square analyses conducted only among Internet users showed that 66% of 66 Facebook users accessed the Internet from a cell phone as compared with 33% of the 36 Facebook nonusers, $\chi^2(1, n = 102) = 10.5$, $p < .01$, lending support to H2. Also, chi-square analyses showed that the percentage of Facebook users (total $n = 69$) who owned cell phones (92.8%) was significantly higher than that of Facebook nonusers (total $n = 79$) who owned cell phones (68%), $\chi^2(1, N = 148) = 13.6$, $p < .001$, supporting H3.

Finally, independent-samples *t* tests showed that homeless Facebook users ($n = 69$; $M = 2.90$, $SD = 1.21$) were significantly more likely to understand Internet and computer terms than were Facebook nonusers ($n = 79$; $M = 1.63$, $SD = 1.05$), $t(135.8) = -6.74$, $p < .001$, lending support to H4. In addition, chi-square analyses conducted among Internet users showed that 62% of homeless Facebook users (total $n = 66$) had checked the Web for jobs when they were last online, as opposed to 36% of homeless Facebook nonusers (total $n = 36$), $\chi^2(1, n = 102) = 6.33$, $p < .05$. Also, independent-samples *t* tests showed that homeless Facebook users ($n = 66$; $M = 3.23$, $SD = 1.67$) spent significantly more time searching for jobs in online forums than did Facebook nonusers ($n = 36$; $M = 2.08$, $SD = 1.51$), $t(135.8) = -6.74$, $p < .001$, supporting H5. However, Facebook users and nonusers did not differ in the amount of time spent using the Internet to search for jobs (H6).

Discussion

In sum, our study compared differences in demographic characteristics, social capital levels, online activities, and cell phone usage patterns between homeless Facebook users and Facebook nonusers in Hawai'i.

First, findings demonstrated that homeless Facebook users were significantly younger and more likely to be female than were nonusers. These findings are consistent with previous research showing that Facebook tends to be more popular among females (e.g., Perrin & Anderson, 2019) and younger people (Hayes et al., 2015). Research has shown that females tend to be more oriented toward socializing and relationship maintenance than are males (Muscanell & Guadagno, 2012). Given that Facebook is predominantly used as a platform for relationship maintenance (Ellison et al., 2007), it is therefore understandable that such gender differences in Facebook use were observed among homeless individuals.

Interestingly, there were no significant differences between Native Hawaiians and other sheltered homeless individuals in terms of Facebook use. Perhaps Native Hawaiian sheltered homeless guests have moved toward parity (Sandvig, 2011). To expect that Native Hawaiian sheltered homeless individuals would appropriate Facebook and cell phones differently than others can lead us into "cherishing the adaptability of the oppressed, who must adapt by necessity because they have no other choice" (Sandvig, 2011, p. 193). For those living in a homeless shelter, the universal needs of food and economic security lead to a consistent expectation to use Facebook in ways that address these needs regardless of social position. This is not to deny the concrete link between colonialism and homelessness (Lyons, 2011; Trask, 1999), but to understand that the use of Facebook situates itself in a context where the homeless must "survive, raise

families, and build communities on beaches and parks in one of the most expensive real estate markets in the U.S., in the face of dwindling state assistance" (Lyons, 2011, p. 150).

Second, Facebook users were significantly more likely to have engaged in online job search activities than were nonusers. It is possible that many homeless individuals might be using Facebook as a starting point to gain access to a wider array of job-related online information on external websites such as job-search forums. However, unlike previous studies examining online platform use among homeless individuals in Los Angeles (Rice & Barman-Adhikari, 2014), no significant differences in online housing searches were observed between homeless Facebook users and nonusers in this current study. Honolulu's tropical weather might be less likely to serve as a strong impetus for homeless individuals to find permanent housing than for those in Los Angeles, which experiences cooler year-round temperatures. In addition, the finding that homeless Facebook users exhibit higher levels of Internet efficacy is consistent with research showing that usage of online applications is associated with Internet efficacy (e.g., Yu et al., 2017).

Third, Facebook users exhibited significantly higher levels of bonding social capital than Facebook nonusers. This finding addresses important research gaps on how Facebook use is associated with social capital levels among homeless adults. Given Facebook's crucial role in relationship maintenance (Ellison et al., 2007), homeless individuals in Honolulu can use Facebook to keep in touch with close friends who can provide them with critical social support and help. Consequently, most offline or online social interaction "remains local and within people's intimate bonding networks" (Chen, 2013, p. 23) despite technology's capability to bridge great geographic distances. Although homeless Facebook users spent significantly more time on online job-search activities than did nonusers, bridging social capital levels did not differ between these two groups of people. Perhaps homeless shelters can train homeless Facebook users to translate knowledge acquired from online job searches into offline success in finding jobs.

Facebook has unique affordances compared with other social media platforms that encourage sociality with peers (Baym, 2010, pp. 386–387). Previous research has demonstrated that social capital outcomes can be dependent on connection strategies (i.e. social scanning of a new friend on Facebook) or affordances (i.e. Facebook groups) that are used to develop social support (Ellison et al., 2011). Our study demonstrates that homeless individuals on Facebook acquire bonding social capital. Future research should examine how homeless individuals strategize their Facebook connections and affordances to acquire bonding and bridging social capital.

Fourth, homeless Facebook users are more likely to have their own cell phones, access the Internet from their cell phones, and spend more time on their cell phones than Facebook nonusers. An independent-samples *t* test also showed that homeless individuals who owned cell phones spent significantly more time on Facebook ($M = 2.88$, $SD = 2.02$) than those who did not have personal cell phones ($M = 1.50$, $SD = 1.25$), $t(72.4) = -4.68$, $p < .001$. This suggests that cell phones provide mobile and private communications for homeless Facebook users and help to address the dearth of research on the specific relationship between Facebook use and cell phone use among homeless individuals.

Previous research demonstrates that cell phones are dependently unstable devices to maintain Internet access for low-income communities (Gonzales, 2014; Gonzales et al., 2016), and are particularly

so for the homeless (Humphry, 2020; Rhoades et al., 2017). Cell phones are pawned, stolen, and lost, reflecting the survival strategies needed to manage life on the street. Yet mobile access to the Internet is not only difficult to maintain but also a poor value. Mobile phones owned by the homeless are older, underpowered, and costly through "poverty premium" pricing strategies. As shown by Humphry (2020), poverty premium pricing strategies take advantage of the poor's reliance on mobile phones as their sole communication device. As welfare services are moved online to fulfill reporting and compliance obligations, homeless individuals take on additional debt through top-ups and excess fees for exceeding their prepaid data allotment. Future research should examine the additional financial burdens imposed on homeless individuals to maintain "second class" Internet access solely through mobile devices.

Homeless individuals without Facebook were significantly less likely to own and use a cell phone and access the Internet through a cell phone. Therefore, Facebook nonusers may have been unable to perceive the relevance of the cell phone to their particular social situation. Because Facebook nonusers were also significantly lower on Web skills compared with Facebook users, they might have been skeptical toward the possibility of Internet technologies improving their social position. Gonzales (2016) suggests that negative perceptions of ICTs may reflect the lack of time and resources to acquire and use cell phones rather than an inherent unwillingness to adopt these devices. Taking into consideration the age of our homeless sample, this seems to be a more beneficial explanation rather than the constant turnover of cell phone ownership.

With regard to study limitations and future research directions, the current HUD definition does not include couch surfing or hidden homelessness, which might be relevant in Hawai'i. Future studies can examine whether such couch surfing affects Facebook use among the homeless. Furthermore, it is possible for homeless individuals to give socially desirable survey responses (Johnson & Parsons, 1994). Perhaps future studies could use other research methods such as field observations at homeless shelters to further understand how the homeless use (or do not use) Facebook. Also, future studies could attempt to ascertain whether these findings can be observed across other social media platforms such as Instagram or Twitter. Furthermore, this study does not address how Facebook benefits other homeless individuals. Future research can examine how dyadic interactions between homeless individuals are shaped by Facebook use.

Overall, this study contributes to research on Internet use among homeless individuals in the following ways. First, this study goes beyond the young adult samples in previous related research (e.g., Guadagno et al., 2013; Harpin et al., 2016; Rice & Barman-Adhikari, 2014) and specifically examines Facebook use among a diverse age range of homeless adults. This allows us to uncover patterns of social media usage among a larger age range of homeless individuals. Second, this study focuses specifically on how Facebook use is associated with online activities among homeless individuals in Honolulu, a city that has a significantly warmer climate in comparison with most other regions in the United States. Third, this study addresses important research gaps on how Facebook use (vs. nonuse) predicts social capital levels among homeless adults. Fourth, unlike previous studies that have treated Facebook use and cell phone use as separate outcomes (e.g., Harpin et al., 2016), our study examines the relationship between Facebook and cell phone use among homeless individuals.

References

- Adler, P. S., & Kwon, S. W. (2002). Social capital: Prospects for a new concept. *Academy of Management Review*, 27, 17–40. doi:10.5465/amr.2002.5922314
- Anderson, M., Perrin, A., Jiang, J., & Kumar, M. (2019). 10% of Americans don't use the Internet. Who are they? *Pew Research Center*. Retrieved from <https://www.pewresearch.org/fact-tank/2019/04/22/some-americans-dont-use-the-internet-who-are-they/>
- Baym, N. K. (2010). Social networks 2.0. In R. Burnett, M. Consalvo, & C. Ess (Eds.), *The handbook of Internet studies* (pp. 384–405). Malden, MA: Blackwell.
- Blair, A. (2019, February 14). IHS: 1 in 10 homeless people in Hawaii just got here from somewhere else. *Hawaii News Now*. Retrieved from <https://www.hawaiinewsnow.com/2019/02/15/ihs-homeless-people-hawaii-just-got-here-somewhere-else/>
- Buente, W. (2015). Digital citizenship or inequality? Linking Internet use and education to electoral engagement in the 2008 U.S. presidential election campaign. *Bulletin of Science, Technology & Society*, 35, 145–157. doi:10.1177/0270467615624756
- Callies, D. L. (2010). *Regulating paradise: Land use controls in Hawai'i* (2nd ed.). Honolulu, HI: University of Hawai'i Press.
- Campbell, B., Caine, K., Connelly, K., Doub, T., & Bragg, A. (2015). Cell phone ownership and use among mental health outpatients in the USA. *Personal and Ubiquitous Computing*, 19, 367–378. doi:10.1007/s00779-014-0822-z
- Castro, A. L., Gustafson, E. L., Ford, A. E., Edidin, J. P., Smith, D. L., Hunter, S. J., & Karnik, N. S. (2014). Psychiatric disorders, high-risk behaviors, and chronicity of episodes among predominantly African American homeless Chicago youth. *Journal of Health Care for the Poor and Underserved*, 25, 1201–1216. doi:10.1353/hpu.2014.0124
- Chen, W. (2013). The implications of social capital for the digital divides in America. *The Information Society*, 29(1), 13–25. doi:10.1080/01972243.2012.739265
- Connolly, K. K., & Crosby, M. E. (2014). Examining e-health literacy and the digital divide in an underserved population in Hawai'i. *Hawai'i Journal of Medicine & Public Health*, 73(2), 44–48.
- Correa, T. (2010). The participation divide among "online experts": Experience, skills and psychological factors as predictors of college students' web content creation. *Journal of Computer-Mediated Communication*, 16, 71–92. doi:10.1111/j.1083-6101.2010.01532.x

- De Oliveira, B. (2018). On the news today: Challenging homelessness through participatory action research. *Housing, Care and Support*, 21(1), 13–25. doi:10.1108/HCS-01-2018-0002
- Department of Commerce and Consumer Affairs. (2012). *Hawaii Broadband Strategic Plan*. Retrieved from https://cca.hawaii.gov/broadband/files/2015/01/Hawaii_Broadband_Strategic_Plan_Dec_2012.pdf
- DiMaggio, P., Hargittai, E., Celeste, C., & Shafer, S. (2004). Digital inequality: From unequal access to differentiated use. In K. M. Neckerman (Ed.), *Social inequality* (pp. 355–400). New York, NY: Russell Sage Foundation.
- Ellison, N. B., Steinfield, C., & Lampe, C. (2007). The benefits of Facebook "friends": Social capital and college students' use of online social network sites. *Journal of Computer-Mediated Communication*, 12, 1143–1168. doi:10.1111/j.1083-6101.2007.00367.x
- Ellison, N. B., Steinfield, C., & Lampe, C. (2011). Connection strategies: Social capital implications of Facebook-enabled communication practices. *New Media & Society*, 13, 873–892. doi:10.1177/1461444810385389
- Eyrich-Garg, K. M. (2011). Sheltered in cyberspace? Computer use among the unsheltered "street" homeless. *Computers in Human Behavior*, 27, 296–303. doi:10.1016/j.chb.2010.08.007
- Farrugia, D., & Gerrard, J. (2016). Academic knowledge and contemporary poverty: The politics of homelessness research. *Sociology*, 50, 267–284. doi:10.1177/0038038514564436
- Ferris, A. L., & Hollenbaugh, E. E. (2018). A uses and gratifications approach to exploring antecedents to Facebook dependency. *Journal of Broadcasting & Electronic Media*, 62, 51–70. doi:10.1080/08838151.2017.1375501
- Gonzales, A. (2016). The contemporary U.S. digital divide: From initial access to technology maintenance. *Information, Communication & Society*, 19, 234–248. doi:10.1080/1369118X.2015.1050438
- Gonzales, A. L. (2014). Health benefits and barriers to cell phone use in low-income urban U.S. neighborhoods: Indications of technology maintenance. *Mobile Media & Communication*, 2, 233–248. doi:10.1177/2050157914530297
- Gonzales, A. L., Ems, L., & Suri, V. R. (2016). Cell phone disconnection disrupts access to healthcare and health resources: A technology maintenance perspective. *New Media & Society*, 18, 1422–1438. doi:10.1177/1461444814558670
- Guadagno, R. E., Muscanell, N. L., & Pollio, D. E. (2013). The homeless use Facebook?! Similarities of social network use between college students and homeless young adults. *Computers in Human Behavior*, 29, 86–89. doi:10.1016/j.chb.2012.07.019

- Hargittai, E., & Hinnant, A. (2008). Digital inequality: Differences in young adults' use of the Internet. *Communication Research, 35*, 602–621. doi:10.1177/0093650208321782
- Hargittai, E., & Hsieh, Y. P. (2012). Succinct survey measures of Web-use skills. *Social Science Computer Review, 30*, 95–107. doi:10.1177/0894439310397146
- Harpin, S., Davis, J., Low, H., & Gilroy, C. (2016). Mobile phone and social media use of homeless youth in Denver, Colorado. *Journal of Community Health Nursing, 33*, 90–97. doi:10.1080/07370016.2016.1159440
- Hayes, M., van Stolk-Cooke, K., & Muench, F. (2015). Understanding Facebook use and the psychological affects of use across generations. *Computers in Human Behavior, 49*, 507–511. doi:10.1016/j.chb.2015.03.040
- Helsper, E. J. (2012). A corresponding fields model for the links between social and digital exclusion. *Communication Theory, 22*, 403–426. doi:10.1111/j.1468-2885.2012.01416.x
- Henry, M., Mahathey, A., Morrill, T., Robinson, A., Shivji, A., & Watt, R. (2018). The 2018 Annual Homeless Assessment Report (AHAR) to Congress—Part 1: Point-in-time estimates of homelessness. *Office of Community Planning and Development*. Retrieved from <https://files.hudexchange.info/resources/documents/2018-AHAR-Part-1.pdf>
- Hersberger, J. (2002). Are the economically poor information poor? Does the digital divide affect the homeless and access to information? *Canadian Journal of Information and Library Science, 27*, 45–63. doi:10.29173/cais522
- Hoopes, S. (2018). *ALICE: A study of financial hardship in Hawai'i*. Aloha United Way. Retrieved from <https://www.auw.org/sites/default/files/United%20Way%20ALICE%20Report%20-%20Hawaii%2C%202017.pdf>
- Humphry, J. (2020). "Second-class" access: Homelessness and the digital materialization of class. In E. Polson, L. S. Clark, & R. Gajjala (Eds.), *The Routledge companion to media and class* (pp. 242–252). New York, NY: Routledge.
- Hwang, S. W., Kirst, M. J., Chiu, S., Tolomiczenko, G., Kiss, A., Cowan, L., & Levinson, W. (2009). Multidimensional social support and the health of homeless individuals. *Journal of Urban Health, 86*, 791–803. doi:10.1007/s11524-009-9388-x
- Irwin, J., LaGory, M., Ritchey, F., & Fitzpatrick, K. (2008). Social assets and mental distress among the homeless: Exploring the roles of social support and other forms of social capital on depression. *Social Science & Medicine, 67*, 1935–1943. doi:10.1016/j.socscimed.2008.09.008

- Johnson, T. P., & Parsons, J. A. (1994). Interviewer effects on self-reported substance use among homeless persons. *Addictive Behaviors, 19*, 83–93. doi:10.1016/0306-4603(94)90054-X
- Kelly, A. K. (2014). Portrait. Marie Beltran and Annie Pau: Resistance to empire, erasure, and selling out. In N. Goodyear-Ka'opua, I. Hussey, & E. K. Wright (Eds.), *A nation rising: Hawaiian movements for life, land, and sovereignty* (pp. 37–47). Durham, NC: Duke University Press.
- Kuwada, B. K. (2015, April 15). *We live in the future. Come join us*. Retrieved from <https://hehiale.wordpress.com/2015/04/03/we-live-in-the-future-come-join-us/>
- Lam, J. A., & Rosenheck, R. (1999). Social support and service use among homeless persons with serious mental illness. *International Journal of Social Psychiatry, 45*, 13–28. doi:10.1177/002076409904500103
- Lee, B. A., Tyler, K. A., & Wright, J. D. (2010). The new homelessness revisited. *Annual Review of Sociology, 36*, 501–521. doi:10.1146/annurev-soc-070308-115940
- Liliuokalani. (2013). *Hawaii's story by Hawaii's queen*. Honolulu, HI: Hui Hānai.
- Lin, N. (2001). Building a network theory of social capital. In N. Lin, K. Cook, & R. S. Burt (Eds.), *Social capital: Theory and research* (pp. 3–29). New York, NY: Aldine De Gruyter.
- Lin, N., & Erickson, B. H. (2008). Theory, measurement, and the research enterprise on social capital. In N. Lin & B. H. Erickson (Eds.), *Social capital: An international research program* (pp. 1–24). New York, NY: Oxford University Press.
- Litt, E. (2013). Measuring users' Internet skills: A review of past assessments and a look toward the future. *New Media & Society, 15*, 612–630. doi:10.1177/1461444813475424
- Livingstone, S., & Helsper, E. (2010). Balancing opportunities and risks in teenagers' use of the Internet: The role of online skills and Internet self-efficacy. *New Media & Society, 12*, 309–329. doi:10.1177/1461444809342697
- Lyons, L. E. (2011). From Indigenous to the indigent: Homelessness and settler colonialism in Hawai'i. In F. Bateman & L. Pilkington (Eds.), *Studies in settler colonialism: Politics, identity and culture* (pp. 140–152). New York, NY: Palgrave Macmillan.
- McInnes, D. K., Li, A. E., & Hogan, T. P. (2013). Opportunities for engaging low-income, vulnerable populations in health care: A systematic review of homeless persons' access to and use of information technologies. *American Journal of Public Health, 103*, e11–e24. doi:10.2105/AJPH.2013.301623

- Miller, K. S., Bunch-Harrison, S., Brumbaugh, B., Kutty, R. S., & FitzGerald, K. (2005). The meaning of computers to a group of men who are homeless. *American Journal of Occupational Therapy, 59*, 191–197. doi:10.5014/ajot.59.2.191
- Modell, J. (1997). (Not) In my back yard: Housing the homeless in Hawai'i. In J. Rensel & M. Rodman (Eds.), *Home in the islands: Housing and social change in the Pacific* (pp. 194–221). Honolulu, HI: University of Hawai'i Press.
- Muscanell, N. L., & Guadagno, R. E. (2012). Make new friends or keep the old: Gender and personality differences in social networking use. *Computers in Human Behavior, 28*, 107–112. doi:10.1016/j.chb.2011.08.016
- Nagourney, A. (2014, June 22). Honolulu shores up tourism with crackdown on homeless. *The New York Times*. Retrieved from <https://www.nytimes.com/2014/06/23/us/honolulu-shores-up-tourism-with-crackdown-on-homeless.html>
- Niheu, K. (2014). Pu'uohonua: Sanctuary and struggle at Mākua. In N. Goodyear-Ka'opua, I. Hussey, & E. K. Wright (Eds.), *A nation rising: Hawaiian movements for life, land, and sovereignty* (pp. 161–179). Durham, NC: Duke University Press.
- Oliver, V., & Cheff, R. (2012). Sexual health: The role of sexual health services among homeless young women living in Toronto, Canada. *Health Promotion Practice, 13*, 370–377. doi:10.1177/1524839912437369
- Partners in Care. (2017). *Bridging the gap & partners in care: 2017 Hawaii statewide point in time count*. Retrieved from <https://www.partnersincareoahu.org/sites/default/files/2017%20Statewide%20PIT%20Report%20-%20Full%20Report%20-%20FINAL.pdf>
- Perrin, A., & Anderson, M. (2019). *Share of U.S. adults using social media, including Facebook, is mostly unchanged since 2018*. Retrieved from <https://www.pewresearch.org/fact-tank/2019/04/10/share-of-u-s-adults-using-social-media-including-facebook-is-mostly-unchanged-since-2018/>
- Phillips, L. (2015). Homelessness: Perception of causes and solutions. *Journal of Poverty, 19*, 1–19. doi:10.1080/10875549.2014.951981
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual Review of Sociology, 24*, 1–24. doi:10.1146/annurev.soc.24.1.1
- Rhoades, H., Wenzel, S. L., Rice, E., Winetrobe, H., & Henwood, B. (2017). No digital divide? Technology use among homeless adults. *Journal of Social Distress and Homelessness, 26*, 73–77. doi:10.1080/10530789.2017.1305140

- Rice, E., & Barman-Adhikari, A. (2014). Internet and social media use as a resource among homeless youth. *Journal of Computer-Mediated Communication, 19*, 232–247. doi:10.1111/jcc4.12038
- Rice, E., Kurzban, S., & Ray, D. (2012). Homeless but connected: The role of heterogeneous social network ties and social networking technology in the mental health outcomes of street-living adolescents. *Community Mental Health Journal, 48*, 692–698. doi:10.1007/s10597-011-9462-1
- Rice, E., Lee, A., & Taitt, S. (2011). Cell phone use among homeless youth: Potential for new health interventions and research. *Journal of Urban Health, 88*, 1175–1182. doi:10.1007/s11524-011-9624-z
- Sala, A., & Mignone, J. (2014). The benefits of information communication technology use by the homeless: A narrative synthesis review. *Journal of Social Distress and Homelessness, 23*, 51–67. doi:10.1179/1573658X14Y.0000000006
- Salviati, C. (2019). *2019 cost burden report: Half of renter households struggle with affordability*. Retrieved from <https://www.apartmentlist.com/rentonomics/cost-burden-2019/>
- Sandvig, C. (2011). Connection at Ewiiapaayp Mountain: Indigenous Internet infrastructure. In L. Nakamura & P. Chow-White (Eds.), *Race after the Internet* (pp. 168–200). New York, NY: Routledge.
- Schneider, B. (2012). Sourcing homelessness: How journalists use sources to frame homelessness. *Journalism, 13*, 71–86. doi:10.1177/1464884911421573
- Schneider, B., & Remillard, C. (2013). Caring about homelessness: How identity work maintains the stigma of homelessness. *Text & Talk, 33*, 95–112. doi:10.1515/text-2013-0005
- Shier, M. L., Graham, J. R., & Jones, M. E. (2010). Social capital for vulnerable groups: Insight from employed people experiencing homelessness. *Journal of Social Distress and Homelessness, 19*, 129–153. doi:10.1179/105307810805365044
- Silver, L., Smith, A., Johnson, C., Jiang, J., Anderson, M., & Rainie, L. (2019). *Use of smartphones and social media is common across most emerging economies*. Retrieved from <https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/>
- Stablein, T. (2011). Helping friends and the homeless milieu: Social capital and the utility of street peers. *Journal of Contemporary Ethnography, 40*, 290–317. doi:10.1177/0891241610390365
- Steinfeld, C., Ellison, N. B., Lampe, C., & Vitak, J. (2013). Online social network sites and the concept of social capital. In F. L. F. Lee, L. Leung, J. L. C. Qiu, & D. S. C. Chu (Eds.), *Frontiers in new media research* (pp. 115–131). New York, NY: Routledge.

- Stennett, C. R., Weissenborn, M. R., Fisher, G. D., & Cook, R. L. (2012). Identifying an effective way to communicate with homeless populations. *Public Health, 126*, 54–56. doi:10.1016/j.puhe.2011.09.020
- Teves, S. N., Smith, A., & Raheja, M. H. (2015). Land. In S. N. Teves, A. Smith, & M. H. Raheja (Eds.), *Native studies keywords* (pp. 59–70). Tucson: University of Arizona Press.
- Trask, H.-K. (1999). *From a native daughter: Colonialism and sovereignty in Hawai'i* (Rev. ed.). Honolulu, HI: University of Hawai'i Press.
- United States Department of Housing and Urban Development. (2018). *The 2018 annual homeless assessment report (AHAR) to Congress*. Retrieved from <https://files.hudexchange.info/resources/documents/2018-AHAR-Part-1.pdf>
- Warren, M. R., Thompson, J. P., & Saegert, S. (2001). The role of social capital in combating poverty. In S. Saegert, J. P. Thompson, & M. R. Warren (Eds.), *Social capital and poor communities* (pp. 1–28). New York, NY: Russell Sage Foundation.
- Watson, T. K. (2010). Homelessness. In C. Howes & J. Osorio (Eds.), *The value of Hawai'i: Knowing the past, shaping the future*. Honolulu, HI: University of Hawai'i Press.
- Watson, T. K. (2020, February 26). The rise of #KanakaTwitter. *Honolulu Civil Beat*. Retrieved from <https://www.civilbeat.org/2020/02/trisha-kehaulana-watson-the-rise-of-kanakatwitter/>
- Yu, T. K., Lin, M. L., & Liao, Y. K. (2017). Understanding factors influencing information communication technology adoption behavior: The moderators of information literacy and digital skills. *Computers in Human Behavior, 71*, 196–208. doi:10.1016/j.chb.2017.02.005
- Yuan, S., & Gauci, K. T. (2018). *Homeless service utilization report: Hawaii 2017*. Retrieved from https://uhfamily.hawaii.edu/sites/uhfamily.hawaii.edu/files/publications/HomelessServiceUtilization_2017.pdf