Appnography: Modifying Ethnography for App-Based Culture

Luc S. Cousineau, Harrison Oakes,
and Corey W. Johnson

It had only been a full week since he arrived at his parents' small bungalow in Mexico, but to Jeremy it felt like a year. Nestled in a small village several kilometers outside a small city, Jeremy's parents belonged to a conservative sect of Evangelical Christians. He saw them once a year and the visit was always pleasant enough, but he could not shake the feeling that he was a stranger to them.

A gay atheist attending graduate school in the US, Jeremy could hardly be more different from his family and the culture he grew up in. While he experienced a sense of comfort from the familiarity of his family's customs, it clashed with the stark isolation he felt in his relationships with his parents and older brother. Desperate to talk to someone who was like him, he went into his room, closed the door, and opened Grindr on his iPhone.

L. S. Cousineau (✉) • C. W. Johnson
Department of Recreation & Leisure Studies, University of Waterloo,
Waterloo, ON, Canada
e-mail: Luc.cousineau@uwaterloo.ca; corey.johnson@uwaterloo.ca

H. Oakes
Department of Psychology, University of Waterloo, Waterloo, ON, Canada
e-mail: hoakes@uwaterloo.ca

There, on the screen before him, were the familiar rows of users, arranged in order of geographical proximity. He scrolled through the rows as he sat down on his bed, noting the differences in the user profiles from those he saw back home. Fewer men included their faces in their profile picture, and a lot of profiles mentioned "activo" and/or "passivo". Curious, he pulled up his translator and began to translate users' Spanish profile descriptions into English.

Seconds later, his iPhone vibrated and he saw that ballar35 had sent him a message. "hola", it read, and Jeremy smiled to himself. Even in Mexico, gay guys still used the same lackluster openings. "Hola", he typed back. "Cómo estás?" He smiled again. He had exhausted the extent of his knowledge of Spanish, but it felt good to interact with someone who was like him. Somehow, he felt a little less alone.

Jeremy's experience exemplifies one of the key aspects of digitality in today's world: the hybridization of digital and physical spaces. Hybrid space allows sexual minorities to be as visible as desired (virtually), regardless of the physical space they inhabit (Roth, 2014). Jeremy's ability to queer the staunchly heterosexual space his physical body was situated in by logging in to Grindr highlights just one way (of infinite possibilities) in which digital and physical spaces interact to create hybrid spaces that shape people's experience of life.

In this chapter, we will explore the world of apps like Grindr and how we might study them and their users. In providing guideposts for studying these apps, we will draw on feminist and queer theory to inform our articulation of a new digital ethnography. Less a prescriptive list of how-to's, we instead outline theoretical considerations for incorporating apps like Grindr into digital ethnographies. We do this in recognition of, and in response to, the dilemmas in digital research. These dilemmas arise from quickly changing social and technological environments—where updates, competitors, and user preferences can dramatically change the site of one's research at any time—and from the need for research processes that are strongly grounded in theory, yet flexible enough to adapt to the rapid fluctuations in digital environments. Though not an easy task, we attempt to address some of these dilemmas in our proposal for digital ethnographies of apps like Grindr.

The language we use throughout this chapter warrants special mention. We use the term "digital" interchangeably with virtual, online, and computer-mediated (see: Kollock & Smith, 1999; Law & Singleton, 2000; Turkle, 1996) because we perceive these terms to be synonymous with each other for our purposes. However, in certain fields (e.g., new media studies, internet studies) terms like Internet, internet, web, and so on, mean different things, and we have done our best to reflect those meanings here. For example, "web" refers specifically to the content of the World Wide Web or what might be colloquially called the internet (lower case i). When people say they "went online" or "found it online", they are generally referring to the web, although it is possible to have online interactions without being on the web (e.g., Internet Relay Chat—IRC). Use of the term "the Internet" (capital I) is generally reserved for discussion of the infrastructure and content of the global network, including underground/water cabling which connects continents, data centers, server farms, and your cloud email account. Although most of what we discuss in this chapter references internet interaction, some of it does not (e.g., SMS is not Internet-based—although that line is blurred by Apple's use of data for iMessage), and we do our best to distinguish between the two accurately.

Geo-Social Networking Apps

Geo-social networking applications (GSNAs)[1] use mobile technologies to create computer-mediated interactions whereby users participate in different relational activities exclusively through mobile, internet-connected, global positioning system (GPS)–enabled devices. Despite their relatively recent appearance on the technological scene, they have quickly become a locus in the social lives of their users, with several GSNAs boasting millions of users (Grindr, n.d.-a; Perry Street Software,

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[1] Though we adopt the term "geo-social networking apps", other scholars have used a variety of different terms to denote the same object of study (e.g., "location-based real-time dating apps", Blackwell et al. 2015; "location-based social networking applications", Brubaker et al. 2016; "GPS-enabled networking site", Gudelunas 2012, p. 348; "gay-targeted geosocial networking services", Roth 2014, p. 2118).

Inc. n.d.; Tepper, 2017). The basic design of GSNAs is simple: users log on and are presented potential matches that are curated based on geographical proximity and user preferences. The user can choose to interact (or not) with their potential matches, and the apps facilitate electronic communication (e.g., text, virtual gifts, photo, video).

One of the first GSNAs released, Grindr launched in March 2009 (Kincaid, 2009) as a virtual space in which "gay, bi, curious, and queer men" (Grindr, n.d.-a) could connect and spend time with each other. Grindr is "the largest all-male social network in the world, with over 3 million daily active users in 234 countries and territories" (Grindr, n.d.-b). On average, users log in to Grindr 18 times per day and spend 54 minutes actively logged in across each day (Grindr, n.d.-b). Woo (2015) argues Grindr has become the central "lens through which we may examine the quickly changing Western queer culture, and the values and beliefs of the men in it" (p. 63). Of course, Grindr is not the only mainstream GSNA for sexual minority men (e.g., SCRUFF, Jack'd, GROWLr, Hornet), nor are GSNAs solely geared toward sexual-minority men.

The most popular GSNA catering to heterosexual users is Tinder[2] (Tepper, 2017). Released in late 2012, Tinder's popularity quickly exploded, becoming the most popular app of its kind. By spring 2014, the app had reached one billion matches between users (Stampler, 2014). Currently boasting over ten billion matches made (Tinder Inc., 2017), Tinder not only includes the ability to connect with individual users, but also featured "Tinder Social," the ability for groups to connect with other groups to coordinate social gatherings (Tinder Inc., 2017)[3]. Recently, Tinder also expanded users' options for identifying their gender, allowing them to self-define and select whether their profile should be shown in searches for men, women, or both (Tinder Blog, 2016).

Beyond Grindr and Tinder, a host of dating and hookup apps aim to cater to more specific niche markets in an effort to address particular users' needs and desires. For example, Feeld was designed for singles or couples to meet other "kinky, curious and openminded humans" (Feeld

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[2] Tinder also caters to non-heterosexual users, but it is currently the most popular app for heterosexual users.

[3] The "Tinder Social" feature is no longer available in the app. Even though Tinder claims it was successful, they decided it did not best "meet their brand goals" as a service. This is also an excellent example of the important temporality of studying apps and app-based technology spaces (discussed below), as this change occurred between the writing of this chapter and the proofing process.

Ltd., 2017), Sizzl was designed by Oscar Mayer for bacon lovers (Matney, 2015), and Sweatt was designed for fitness lovers (SWEATT Inc., 2017). While many of these niche apps are bound to go the way of most new startups (indeed, Sizzl already appears to have done so), they highlight the growing diversity among GSNAs and challenge the mainstream GSNAs to diversify their design and services to meet the unique needs of their members.

Despite the prevalence and diversity of GSNAs around the world, relatively little work has examined their implications for users and social cultures. Of the work that exists, much of it focuses on sexual minority men. As such, there is a dearth of research on GSNA use among gender minority, female sexual minority, and straight populations. This lack of research belies the many rich opportunities for novel theorizing and insights into human behavior that we believe GSNAs offer. Among these opportunities are topics related to the overlay of physical and virtual spaces, identity and identifiability (Blackwell, Birnholtz, & Abbott, 2015), user profiles, and user interactions. As we move on to consider the theoretical implications of queer and feminist theory for the study of GSNAs, we will highlight several ways in which researchers can address these (and other) topics in meaningful ways.

Feminist Theory, Queer Theory, and Digital Cultures

With the introduction of what has been called a "fourth wave" of feminism in North America, feminist theory has refocused to include new social domains (e.g., the web) and the potential for new allied voices (e.g., men) (Johnson & Cousineau, 2018). It is through this development that we, as three White men, are able to both participate in, and contribute to, the discourses developing in this volume. In doing so, we must acknowledge that we engage with feminist theory from a positionality that is indeed "locat[ed] within shifting networks of relationships" (Maher & Tetreault, 2001, p. 164), but is inherently different from that of our female colleagues. We also engage with queer theoretical perspectives as they interrogate the assumed naturalness of binary identities and

allow us to be sensitive to "the complicated and multilayered lived experiences and subjectivities of individuals" (Valocchi, 2005, p. 767), including our own.

Feminist and queer theoretical orientations provide tools to identify and examine the structural and discursive elements of social phenomena that otherwise are often overlooked. This expository quality makes both theories particularly valuable for our adaptation of digital ethnography to GSNAs because they position the elements of digital space for deep critique, both in approach and in the "who" these spaces claim to represent. This positionality allows us to understand the digital and digitality as extensions of—not separate from—the social power relations that permeate our everyday lives.

Both feminist and queer perspectives on the early web adopted the prefix "cyber" (cyberfeminism, cyberqueer) as they shifted their focus to this new social space. Although "cyber" evades thorough specification, its junction to either theoretical perspective reflected the symbiotic relationship between theory and digital space, and each perspective's initial celebration of the potential for the Internet to queer social life and realize new and utopic digital cultures (Daniels, 2009; Gross, 2007; Paasonen, 2011; Rodat, 2014; Wakeford, 2000). To early cyberfeminism and cyberqueer theorists, the Internet was an opportunity to dissolve the embodied self through anonymity and opportunities to adopt and perform multiple identities (e.g., Rheingold, 2000).

Over time, and particularly with the rise of Web 2.0 user-generated profit models (Parks, 2015; Shade, 2013; Star, 1999), hegemonic social cultures and power relations from the physical world largely supplanted those which pre-existed online (Rodat, 2014). In some cases, the manifestations of these power relations became even more problematic (e.g., consider the common practice of sending unsolicited "dick pics" (i.e., pictures of men's penises)); see Barlett (2015); and Barlett, Gentile, & Chew (2016) for discussions of anonymity in cyberbullying; see Omernick & Sood (2013) for a discussion of anonymity in reader comments on a news site), forcing both theoretical perspectives to shift their focus to addressing discrepancies of representation and power as they extend into the digital. Simultaneously, cyberfeminism and cyberqueer theory maintain the ideological perspective that online experiences need not be gendered,

powered, oppressed, or actualized in the same ways that physical ones currently are. It is with these lenses that we explore how we might queer digital ethnographic research to better represent the experiences of users and the social, power, technological, and infrastructural settings of those experiences.

Digital Ethnography

Ethnography is a methodology that has deep roots across a variety of disciplines, especially in anthropology, but also in sociology, communications studies, cultural studies, and leisure sciences. Although the practice of ethnography is slightly different between disciplines and paradigms, Karen O'Reilly (2012) summarizes their commonalities by describing ethnography as

> [a] practice that evolves in design as the study progresses; involves direct and sustained contact with human beings, in the context of their daily lives, over a prolonged period of time; draws on a family of methods, usually including participant observation and conversation; respects the complexity of the social world; and therefore tells rich, sensitive, and credible stories. (p. 4)

Although her definition is broad in scope, it has not been without its detractors, particularly from researchers applying ethnography to digital spaces, also known as digital ethnography. Pink et al. (2016), along with other scholars researching the digital world, contend that O'Reilly's insistence that researchers have direct and sustained contact with human beings during the course of their research is mostly impossible for digital contexts. O'Reilly's implication, they claim, is that researcher contact must be in-person, ruling out digital contact as "true" ethnography. This has led some researchers to propose a separate space for ethnography in the "digital" (e.g., *netnography*; (Kozinets, 2010)), or, like Pink et al. (2016), digital ethnography.

We contend that digital contact (e.g., through blogs, massively multiplayer online environments [MMOs], online chat rooms, social media,

GSNAs) does indeed meet the standard for O'Reilly's direct and sustained contact if we first reject the premise that a person's online actions and representations are separate from their offline self (sometimes referred to as their "real" self). Scholars across various fields have established the non-separation of the digital and the "real" (e.g., in anthropology, see Boellstorff, 2016; for a queer perspective, see Mowlabocus, 2010), and we rely on their theorizing to help frame a new digital ethnography that eschews a digital/"real" divide and is a robust and appropriate way to undertake the study of GSNAs specifically, and other contexts more generally.

Borrowing from Pink et al. (2016), as well as theories on the multiplicity of subjectivities (Pavlidis & Fullagar, 2013), and the queering of digital spaces (Keeling, 2014; Lupton, 2015), we argue that a digital ethnography of GSNAs must (a) incorporate the many ways users intersect and interface with the digital; (b) be transparent and reflexive about the how and why of the ethnographic project and in communicating with and involving participants; and (c) acknowledge the non-centrality of the digital spaces or media objects within the ethnographic study, recalling the intersections of individual, social, technological, personal, and public that interpolate the user. We situate these ethnographic elements in feminist and queer theory to remain conscious of the social power dynamics that are critical for understanding the false dichotomy of digital/"real", user profiles, digital space and place, contextuality, and temporality of GSNA interactions.

Taking up a queer approach to research begins with recognizing that queer exists within (Ahmed, 2006). To "queer" ethnography (or any other methodology), then, involves a process of finding what within it is queer, identifying those "queer moments" that lead to an "intellectual experience of disorder" (Merleau-Ponty, 2002, p. 296)[4] and embarking with that insight in mind. These realizations also serve to identify and expose power relationships and inequities to be explored and challenged from a feminist perspective.

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[4] We borrow Ahmed's (2006) reading of Merleau-Ponty's (2002) work on the phenomenology of perception for its ability to evoke a phenomenological image of what it means to "queer" ethnography.

Next, proper contextualization of the research object/phenomenon and the locality and temporality of the research are necessary for a feminist/queer-influenced digital ethnography. Mowlabocus (2010) argued that to study digital culture, we have first to step back from the digital to look at the sociohistorical "contexts, discourses and structures that frame" (p. 21) the broader cultural and sociopolitical contexts. Only in understanding the relevant sociohistorical contexts can one fully appreciate the current manifestations of digital culture and the pre-existing conditions of knowledge production that have shaped them. Contextualization can, among other things, help to do "justice to the ways that people live their sexual identities with complexity and [to question] the conditions of knowledge production when theorizing queer lives" (Rooke, 2009, p. 157) or complex power structures in social and sexual relationships. Finally, we must carefully consider the ethical implications of our methodologies and how we implement them, acknowledging and engaging with the inherent power we gain as researchers, and using this awareness in our reflexive practice.

What follows is an exploration of each of these elements of GSNA study, guided by feminist and queer theoretical perspectives, and including our recommendations for this methodological approach. This exploration will create a set of guideposts that other researchers can utilize when contemplating and planning digital ethnographies of GSNAs or other digital contexts.

Methodological Considerations

The uniqueness of GSNAs requires that we consider carefully the approach that we take in choosing to study them. What follows are considerations that we propose for the queering of digital ethnography to meet the needs of this particular research space, beginning with how we must understand the intertwined nature of digital and "real". This is followed by a discussion of the power and influence of profiles on users and researchers, the importance of space and place when engaged with GSNAs, and, finally, the significance of both context and temporality on research decisions and practices.

The Digital Versus the "Real"

Early web research often contextualized online/digital and offline/"real" as separate and distinct within the social, physical, and emotional manifestations of the people involved (see Rheingold, 1993, for a well-known example). The binary nature of this distinction allowed for theoretical considerations of digital space as new, fresh, open, and void of latent social influence in its development (ward, 1999). Although the lines between "digital" and "real" increasingly blurred as computer technology began to infiltrate all aspects of life (e.g., Gross, 2007; Gudelunas, 2012; Manovich, 2006), notions about the distinct separation between "digital" and "real" selves continue to be employed in research (cf. Mishna, McLuckie, & Saini, 2009; Riebel, Jaeger, & Fischer, 2009) and colloquial understandings of self (nobullying.com, 2016).

This perceived digital/"real" divide is softened some by the increasingly ubiquitous nature of personal technologies like mobile devices, and has prompted the emergence of a discourse around "hybridized" bodies and spaces (e.g., Gudelunas, 2012; Kozinets, 2010; Nayar, 2010). Roth (2014) described this hybridization as "[u]sers [being] at once constructed as data [online] and physically engaged in social and sexual interactions [offline]" (p. 2128). Rather than a digital/"real" identity binary, then, these personifications are interwoven in a fundamental way, a matrix of the physical body with the digital manifestations of the self (Roth, 2014).

GSNAs provide a tangible representation of this matrix. As one example, in-app (i.e., "digital") interactions are predicated on the visually personified elements of the profile and frequently geared toward securing in-person (i.e., "real") meetings for social and/or sexual purposes (Tikkanen & Ross, 2004; Rodat, 2014). The "digital" and "real" elements of these interactions are interwoven with each other, both determining the course and outcome(s) of the connection between users. It is crucial, then, for a new digital ethnography to deconstruct the online/offline, virtual/real binaries in a way that recognizes the virtual as the extended, constructed self (or selves), while remaining mindful and respectful of the fact that, for some users, a multiplicity of representations might be necessary for the emotional (and at times physical) safety of the user.

Profiles

Perhaps no aspect of GSNAs is better suited to cyberqueer or cyberfeminist analysis than "the profile;" the nexus of social interaction on GSNAs. Profiles are the point at which users render themselves visible, assert their identity(ies), and position themselves as part of (or not) a digital community (Horne & Lewis, 1997; Mowlabocus, 2010). Coupland (1996) described such visibility as "involved not only with the promoting or 'selling' of selves but [also] with the attracting or 'buying' of others" (p. 191). In a sense, profiles grant users membership into a buyer's club while simultaneously functioning as an advertisement aimed at garnering potential buyers' interests. Of critical importance is the image of a user's brand—the "profile pic". Many considerations go into selecting the right image and no wonder, considering users must contend with a saturated market in which disconnection is easy, rejection is easier still (to dish out and to accept), and where users frequently "rebrand" their profile to increase their perceived attractiveness (Brown, Maycock, & Burns, 2005; Woo, 2015). Self-presentational concerns dominate users' experiences and—regardless of individual users' politics or queerness—create powerful incentives to curate attractive profiles so as to increase their odds of generating other users' interest (Blackwell et al., 2015).

When curating a profile, users must contend with the limitations of GSNA designs for quantifying and categorizing users. Opting out of these reductive signifiers results in exclusion from filters and searches based on them, weakening users' integration into the space of a GSNA (Roth, 2014). However, by quantifying identity, GSNAs create "credentials against which individuals can (and frequently do) assess themselves" (Roth, 2014, p. 2125). Therefore, digital ethnographies of GSNAs must recognize these hetero/homonormative simplifications of user identity and interrogate users' potential for queering their profiles and/or participation in the digital space.

For the digital ethnographer, the profile is the gateway to accessing participants and the compelling data we seek. Beyond simply collecting the photos, categorical identifiers, and open-ended descriptions on users' profiles, we must use interviews to discuss the considerations that go into profile creation. From staging the perfect profile picture (e.g., considering

lighting, angle, facial expression, body posture, clothing (or lack thereof), setting, background) to choosing (or avoiding) certain categorical identifiers, we should explore users' understanding of the function of the profile in their presence in GSNAs. One way in which this is (sometimes) achieved is by having a user take us through their profile and explain the thought process behind their profile decisions. This approach is similar to the guided tour method used by Manago (2013) and extends the user-centered walk-through method of apps research suggested by Light, Burgess, and Duguay (2016). In this way, we are able to distinguish, for example, between the user who does not fill out their profile because they are resisting identity categorization and the user who does not do so because they believe most other users will not read what they have written.

With these considerations in mind, researchers may use their own profiles (if they already have one) as a setting to document their interactions with other users. In this case, the researcher will likely have an established familiarity with the currency and valuations within that particular GSNA interface, and can leverage that knowledge to generate data. Another option is to recruit research assistants (RAs) who are already users of the GSNA(s) of interest, thereby relying on the same insider knowledge (and hopefully diversity of representation) in data gathering. It is worth acknowledging, however, that using personal profiles—the researcher's or the RAs'—has the potential to be problematic because of the profile's initial aim toward the personal goals of the researcher or RA (relationship, social, or sex) and not the ethnographic project. This goal incongruence may inhibit the researcher from connecting with users on a personal level (e.g., for sex or dating) or could lead to undesired contact and/or harassment from participants post-participation. At the same time, we employ queer theory to challenge the culturally constructed binary of personal/professional and suggest using personal profiles as a way to bring academia to the GSNA and vice versa (Levy & Johnson, 2011). If we further read the profile as marketing material, membership access, and specific representation of a multiple self, we can understand its power in the cultural representation and presentation of bodies and beings. Thus, the cultural power of the profile must necessarily interact with the inherent power relationships created by being researchers on GSNAs. A

queering of digital ethnography must engage directly with these power relationships and immerse the researcher in their complexities.

Space and Place

For the purposes of this discussion, we adopt Massey's (1994) conceptualization of space as dynamic "social relations" (p. 3) inherently bound up with time and place as "the specificity of the mix of links and interconnections to [the] 'beyond'" (p. 6) that make up each articulation of the spatial. Users create space in GSNAs through their virtual presence and profile curation. Simultaneously, GSNAs create place by informing users of their (fluctuating) relative proximity to other users and their standing within the sexual field of the GSNA, based on who shows (or does not show) interest and/or who does (not) respond to their messages (Brubaker, Ananny, & Crawford, 2016; Green, 2014). Because the virtual space of GSNAs is organized by geographic proximity, that space is necessarily in flux (Kitchin & Dodge 2011). As people move through physical space, they change the virtual space around them just as that space is changed by others' movement around them (see Massey, 1994).

The spatial flux gives queer people the ability to construct and/or locate gay space anywhere they travel by simply logging in to their GSNA(s) (Mowlabocus, 2010, p. 202), as seen in our opening vignette. Even within traditionally gay spaces (e.g., gay bars), GSNAs change the space by layering the physical with the virtual and creating more complex social interactions (Brubaker et al., 2016). This is also true for non-sexual minority users, modifying the social dynamic of bars and meeting places by opening users up to more potential partners (Tyson, Perta, Haddadi, & Seto, 2016; Ward, 2017). The implications of this overlap involve a necessary rethinking of established theory around location and community in regard to identities, bodies, and sexualities (Roth, 2014).

Whereas it had previously been suggested that virtual connections present new opportunities for community formation (Earl & Kimport, 2011), with GSNAs, connection rarely implies community. Rather, connection tends to be transactional, more in line with consumerism (Linnes, Metcalf, & Shahijan, 2017; Mowlabocus, 2010), and aimed at quickly

identifying and connecting with similar others (whether for social or sexual purposes). Over time, this connection—and, we would argue, mode of connecting—leads users to see themselves differently and to act differently (Chua, 2014). Digital ethnographies need to consider the long-term effect of virtual engagement in GSNAs on identity processes, both online and off.

A final consideration of space and place concerns researchers who already use GSNAs outside the ethnographic project. In contrast to researchers who engage with GSNAs only in the context of digital ethnography, researchers as pre-existing GSNA users engage with a space defined by pre-existing social relations. This pre-established spatial structure may grant researchers "insider status" and greater access to participant interactions, from chatting with other users to meeting up for social or sexual purposes. While documenting the erotic subjectivity of the researcher may be contentious, we align ourselves with Rooke (2009) in "bend[ing] the established orientation of … [digital ethnography's] method, ethics, and reflexive philosophical principles" (p. 149), requiring us to "[draw] attention to the erotics of knowledge production" (Rooke, 2009, p. 154).

For the researcher occupying GSNA space for research purposes only, their "outsider status" will be an obstacle to navigate. In this instance, the researcher is ethically compelled to be open and honest about their status within the GSNA and the purpose of their building and displaying a profile. Doing so may negatively affect participant recruitment, but it also protects the researcher against unwittingly exploiting participants through deception (cf. Benbunan-Fich, 2016). By allowing potential participants to choose whether or not they wish to engage with the researcher and/or the research project, researchers invest in a balance of power distribution between themselves and potential participants (Ceglowski, 2000).

Contextualization

The design of GSNAs is an important interactive context and limitation for the researcher, but also the user (Chun, 2006). The limitations (pur-

poseful or subconscious) inherent in all programming designs have the potential to coercively shape interaction just as social norms shape social interaction (Chun, 2006; Connell, 2005). Accordingly, new digital ethnographies must recognize the ways in which interactions on GSNAs are limited by the available technology and developers' design decisions. As technology becomes increasingly complex and advanced, the implications of interacting via GSNAs also change. Woo (2015) hints at this when he contrasts the basic design of Grindr profiles with Jack'd and SCRUFF, both of which provide more room for elaboration in their user profiles, thereby allowing users to develop a greater sense of whom they are interacting with.

In studying digital space/culture, one must consider the unique features of the medium and their implications for users. For example, SCRUFF's landing page presents four 4 × 4 grids of user profiles, including two which feature profiles that have received the most endorsements from other users, as measured through the number of "woofs" received.[5] These profiles are largely homogeneous: mostly White, very muscular, shirtless, and "scruffy" (i.e., have body hair and/or beards).

On the other hand, Tinder has no landing page of this nature and offers no in-app articulation of who receives the most likes or swipes right. In this interface, the user is presented with a series of unique potential matches and is simultaneously entered into the queue as a potential match for others in their area. Two of Tinder's original designers, Sean Rad and Justin Mateen, had the following to say when interviewed about their design choices:

> We always saw Tinder, the interface, as a game," … "Nobody joins Tinder because they're looking for something," Rad said. "They join because they want to have fun. It doesn't even matter if you match because swiping is so fun. (Stampler, 2014)

Because Tinder's creators deliberately treated Tinder as a game, it is of little surprise that users often lament the sense of dehumanization it gives them (e.g., Bailey, 2015; Whitley, 2017). From the app-as-game perspective,

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[5] In SCRUFF, users are able to send each other "woofs" as a way of expressing attraction and desire.

one might conclude the user was bound to be dissatisfied because they were using an app designed as a game to look for a romantic partner. But as Woo (2015) argues, it's not an issue of the app; it's an issue of the user using the app to accomplish something the app was not designed to do.

Interrogating design context also creates an opportunity to discuss the limitations of self-expression based on app design. To get at these limitations, one could ask users what feature(s) they wish were available in the GSNA(s) they use. For users who use multiple GSNAs, it may be interesting to explore whether they pursue different goals or user types on the different apps or perceive them as conducive to varying kinds of interaction. In some of our initial research, users report using multiple GSNAs as a way of casting their net wider but favoring one over the others. Often, this preference is tied to a perceived advantage, whether user type, available interactions, or other design features particular to one GSNA.

Temporality

One of the difficulties in studying GSNAs is the speed with which new versions and updates are released, not to mention the frequent releases of altogether new apps. As certain GSNAs gain popularity, others pop up in response to perceived shortcomings in the user experience, social dynamics of the app interface (see the example of Bumble in response to Tinder; (Shontell, 2015)), or accessibility to sexually marginalized groups or subgroups (see the example of the emergence of SCRUFF in response to Grindr (Roth, 2014)). Users may also migrate between apps when seeking out different kinds of interactions (e.g., using Grindr to find hookups and Tinder to seek relationships) or may leave the GSNA landscape altogether. These migrations may be ongoing and may occur during the period of study, and it is important for new digital ethnographies to be aware of these markers of time, context, and user engagement.

When conducting a digital ethnography on GSNAs, it is necessary to document the updates and changes in each new version of the GSNA that is released throughout the study. This may include small changes to the visual characteristics of the app, changes to the app interface, the addition of new features to the app, or major changes that alter the app

and target market significantly (e.g., the addition of same-sex matching or varied gender options on Tinder). These changes to the apps that users are already using may promote different kinds of usage and may change the nature of observations and participant data while the project is underway. It is also important, where possible, to document the emergence of new, niche apps that develop in response to perceived shortcomings in industry leaders. Although increasingly difficult with the plethora of GSNAs coming online (a simple Google Play Store search for "dating, gps" yields dozens of results), this practice may provide valuable data about the state of industry, user desires, and technological development that may inform study analysis and findings.

Conclusion

In this chapter, we have provided the theoretical underpinnings for queering digital ethnography using a set of reflections on its application to studying GSNAs. Our purpose for doing so is twofold: the first is that we have yet to come across an ethnographic methodology that can adequately look into the quickly changing world of apps and their users. The two comprise an evolving co-dependence that relies partly on the capitalist nature of social interaction today and on the integration of technology into all aspects of life (e.g., the quantifiable self (Walker, 2014); mobile and wearable infrastructures (Whitson, 2014); the search for sex/romance (Race, 2015)). This technological infiltration invariably changes our everyday lives, and the way we engage in work and leisure pursuits. In an attempt to adequately represent these dilemmas, we propose a digital ethnography for GSNAs that is open, reflexive, malleable, and that employs both feminist and queer theoretical perspectives in its application.

Second, as researchers engaging in digital environments, and particularly GSNAs, we must remain reflexive about our appreciation and analysis of the varied aspects of our research spaces. The GSNA researcher must remain conscious of the false digital-real divide; with the increasingly integrated technological landscape, lives, jobs, and leisure activities can no longer be divided between the "real" and the "virtual". Instead, they must be considered as existing within a hybridized space.

In documenting these hybrid spaces, we must keep several considerations in mind. First, we must remain conscious of the power structures that shape the design, sales, use, and turnover of mobile apps. We need to investigate how these power structures broker what is valued and how these curated spaces normalize narrow understandings of gender, sexual relations, and attractiveness. Especially in user profiles, these understandings mimic and build upon the "traditional" power relationships both queer and feminist theorists have been critiquing for some time. Second, we must also remember that the offline and online romantic and leisure lives of GSNA users are blurred and intertwined, and that these hybrid spaces and corresponding places are unique to each user and in constant flux. Finally, we must remember that the digital spaces we investigate are locked into contextual and temporal frames that are particular to the apps, versions, users, and technologies available at the specific moment in time that we document them but are also connected to the "beyond" of the moment (Massey, 1994).

We hope that this chapter provides theoretical grounding and guideposts for those who seek to build their own ethnographies of digital spaces and that through this work and the work of those who will follow, we will be able to generate a better picture of the lived experiences of those who are meeting, connecting, dating, and/or having sex through GSNAs.

References

Ahmed, S. (2006). *Queer phenomenology: Orientation, objects, others*. London: Duke University Press.

Bailey, A. (2015, August 11). I became an ice-cold Tinder assassin. *Elle*. Retrieved from http://www.elle.com

Barlett, C. P. (2015). Anonymously hurting others online: The effect of anonymity on cyberbullying frequency. *Psychology of Popular Media Culture, 4*, 70–79. https://doi.org/10.1037/a0034335.

Barlett, C. P., Gentile, D. A., & Chew, C. (2016). Predicting cyberbullying from anonymity. *Psychology of Popular Media Culture, 5*, 171–180. https://doi.org/10.1037/ppm0000055.

Benbunan-Fich, R. (2016). The ethics of online research with unsuspecting users: From A/B testing to C/D experimentation. *Research Ethics*, 1–12. https://doi.org/10.1177/1747016116680664.

Blackwell, C., Birnholtz, J., & Abbott, C. (2015). Seeing and being seen: Co-situation and impression formation using Grindr, a location-aware gay dating app. *New Media & Society, 17*, 1117–1136. https://doi.org/10.1177/1461444814521595.

Boellstorff, T. (2016). For whom the ontology tolls: Theorizing the digital real. *Current Anthropology, 57*, 387–407. https://doi.org/10.1086/687362.

Brown, G., Maycock, B., & Burns, S. (2005). Your picture is your bait: Use and meaning of cyberspace among gay men. *Journal of Sex Research, 42*(1), 63–73.

Brubaker, J. R., Ananny, M., & Crawford, K. (2016). Departing glances: A sociotechnical account of 'leaving' Grindr. *New Media & Society, 18*, 373–390. https://doi.org/10.1177/1461444814542311.

Ceglowski, D. (2000). Research as relationship. *Qualitative Inquiry, 6*, 88–103. https://doi.org/10.1177/107780040000600106.

Chua, L. J. (2014). *Mobilizing gay Singapore: Rights and resistance in an authoritarian state*. Philadelphia: Temple University Press.

Chun, W. H. K. (2006). *Control and freedom: Power and paranoia in the age of fiber optics*. Cambridge, MA: MIT Press.

Connell, R. W. (2005). Change among the gatekeepers: Men, masculinities, and gender equality in the global arena. *Signs, 30*, 1801–1825. https://doi.org/10.1086/427525.

Coupland, J. (1996). Dating advertisement: Discourses of the commodified self. *Discourse & Society, 7*, 187–287. https://doi.org/10.1177/0957926596007002003.

Daniels, J. (2009). Rethinking cyberfeminism(s): Race, gender, and embodiment. *Women's Studies Quarterly, 37*, 101–124. Stable URL: http://www.jstor.org/stable/27655141.

Earl, J., & Kimport, K. (2011). *Digitally enabled social change: Activism in the internet age*. Cambridge, MA: MIT Press.

Feeld Ltd. (2017). Feeld – Dating for couples and single. *iTunes Preview*. Retrieved from https://itunes.apple.com

Green, A. I. (2014). The sexual fields framework. In A. I. Green (Ed.), *Sexual fields: Toward a sociology of collective sexual life* (pp. 25–56). Chicago: The University of Chicago Press.

Grindr. (n.d-a). About. *Grindr*. Retrieved from https://www.grindr.com

Grindr. (n.d-b). Advertise with Grindr. *Grindr*. Retrieved from https://www.grindr.com

Gross, L. (2007). Foreword. In K. O'Riordan & D. J. Phillips (Eds.), *Queer online: Media, technology, & sexuality* (pp. vii–vix). New York: Peter Lang Publishing, Inc.

Gudelunas, D. (2012). There's an app for that: The uses and gratifications of online social networks for gay men. *Sexuality and Culture, 16*, 347–365. https://doi.org/10.1007/s12119-012-9127-4.

Horne, P., & Lewis, R. (1997). Visual culture. In A. Medhurst & S. Munt (Eds.), *Lesbian and gay studies: A critical introduction* (pp. 99–112). London: Cassell.

Johnson, C. W., & Cousineau, L. S. (2018). Manning up and manning on: Masculinities, hegemonic masculinity, and leisure studies. In D. C. Parry (Ed.), *Feminisms in leisure studies: Advancing a fourth wave* (pp. 126–148). New York: Routledge.

Keeling, K. (2014). Queer OS. *Cinema Journal, 53*(2), 152–157.

Kincaid, J. (2009, Mar 25). Gay dating makes its way to the iPhone. *TechCrunch.* Retrieved from https://techcrunch.com

Kitchin, R., & Dodge, M. (2011). *Code/Space: Software and everyday life.* Cambridge, MA: MIT Press.

Kollock, P., & Smith, M. A. (1999). *Communities in cyberspace.* In M. A. Smith & P. Kollock (Eds.), *Communities in cyberspace* (pp. 3–26). New York: Routledge.

Kozinets, R. V. (2010). *Netnography: Doing ethnographic research online.* London: SAGE Publications.

Law, J., & Singleton, V. (2000). Performing technology's stories: On social constructivism, performance, and performativity. *Technology and Culture, 41*, 765–775. https://doi.org/10.1353/tech.2000.0167.

Levy, D. L., & Johnson, C. W. (2011). What does the Q mean? Including queer voices in qualitative research. *Qualitative Social Work, 11*, 130–140. https://doi.org/10.1177/1473325011400485.

Light, B., Burgess, J., & Duguay, S. (2016). The walkthrough method: An approach to the study of apps. *New Media & Society*, 1–20. https://doi.org/10.1177/1461444816675438.

Linnes, C., Metcalf, B. R., & Shahijan, M. K. (2017). The future of apps: A smart investment for business. In S. Rezaei (Ed.), *Apps management and e-commerce transactions in real-time* (pp. 293–313). Hershey, PA: IGI Global.

Lupton, D. (2015). Quantified sex: A critical analysis of sexual and reproductive self-tracking using apps. *Culture, Health & Sexuality, 17*(4), 440–453.

Maher, F., & Tetreault, M. K. (2001). *The feminist classroom*. Lanham, MD: Rowman & Littlefield.

Manago, A. M. (2013). Negotiating a sexy masculinity on social networking sites. *Feminism & Psychology, 23,* 478–497. https://doi.org/10.1177/0959353513487549.

Manovich, L. (2006). The poetics of augmented space. *Visual Communication, 5,* 219–240. https://doi.org/10.1177/1470357206065527.

Massey, D. (1994). *Space, place, and gender*. Minneapolis, MN: University of Minnesota Press.

Matney, L. (2015, September 16). Oscar Meyer releases Sizzl, a dating app for bacon lovers. *TechCrunch*. Retrieved from https://techcrunch.com

Merleau-Ponty, M. (2002). *Phenomenology of perception*. (C. Smith, Trans.). London: Routledge.

Mishna, F., McLuckie, A., & Saini, M. (2009). Real-world dangers in an online reality: A qualitative study examining online relationships and cyber abuse. *Social Work Research, 33,* 107–118. https://doi.org/10.1093/swr/33.2.107.

Mowlabocus, S. (2010). *Gaydar culture: Gay men, technology and embodiment*. London: Routledge.

Nayar, P. K. (2010). *An introduction to new media and cybercultures*. Malden, MA: Wiley-Blackwell.

nobullying.com. (2016). The real effects of cyber bullying. *NOBullying.com*. Retrieved from https://nobullying.com

O'Reilly, K. (2012). *Ethnographic methods* (2nd ed.). New York: Routledge.

Omernick, E., & Sood, S. O. (2013). *The impact of anonymity in online communities*. In Proceedings of the ASE/IEEE International Conference on Social Computing. Retrieved from http://labfs.eecs.northwestern.edu

Paasonen, S. (2011). Revisiting cyberfeminism. *Communications, 36,* 335–352. https://doi.org/10.1515/COMM.2011.017.

Parks, L. (2015). 'Stuff you can kick': Toward a theory of media infrastructures. In P. Svensson & D. Goldberg (Eds.), *Between humanities and the digital* (pp. 355–373). Cambridge, MA: MIT Press.

Pavlidis, A., & Fullagar, S. (2013). Narrating the multiplicity of 'derby grrrl': Exploring intersectionality and the dynamics of affect in roller derby. *Leisure Sciences, 35*(5), 422–437.

Perry Street Software, Inc. (n.d.). SCRUFF. *SCRUFF*. Retrieved from https://www.scruff.com

Pink, S., Horst, H., Postill, J., Hjorth, L., Lewis, T., & Tacchi, J. (2016). *Digital ethnography: Principles and practice*. London: SAGE Publications.

Race, K. (2015). Speculative pragmatism and intimate arrangements: Online hook-up devices in gay life. *Culture, Health & Sexuality, 17*, 496–511. https://doi.org/10.1080/13691058.2014.930181.

Rheingold, H. (1993). *The virtual community: Finding connection in a computerized world*. Boston, MA: Addison Wesley.

Rheingold, H. (2000). *The virtual community: Homesteading on the electronic frontier*. Cambridge, MA: MIT Press.

Riebel, J., Jaeger, R. S., & Fischer, U. C. (2009). Cyberbullying in Germany: An exploration of prevalence, overlapping with real life bullying and coping strategies. *Psychology Science Quarterly, 51*, 298–314. Retrieved from https://doaj.org.

Rodat, S. (2014). Cyberqueer: Major topics and issues in current research. *Revista Româna de Sociologie, 25*, 429–442. Retrieved from http://revista.acadsudest.ro/pdf-uri/nr.5-6-2014/03-SimonaR.pdf.

Rooke, A. (2009). Queer in the field: On emotions, temporality, and performativity in ethnography. *Journal of Lesbian Studies, 13*, 149–160. https://doi.org/10.1080/10894160802695338.

Roth, Y. (2014). Locating the "Scruff guy": Theorizing body and spaces in gay geosocial media. *International Journal of Communication, 8*, 2113–2133. Retrieved from http://ijoc.org.

Shade, L. R. (2013). Gender and digital policy: From global information infrastructure to internet governance. In C. Carter, L. Steiner, & L. McLaughlin (Eds.), *The Routledge companion to media & gender* (pp. 222–232). New York: Routledge.

Shontell, A. (2015, January 27). What it's like to found a $750 million startup, go through a sexual-harassment lawsuit, and start all over by age 25. *Business Insider*. Retrieved from http://www.businessinsider.com

Stampler, L. (2014, February 06). Inside Tinder: Meet the guys who turned dating into an addiction. *Time*. Retrieved from http://time.com

Star, S. L. (1999). The ethnography of infrastructure. *American Behavioral Scientist, 43*, 377–391. https://doi.org/10.1177/00027649921955326.

Sweatt Inc. (2017). Sweatt – A dating app for the fitness community. *iTunes Preview*. Retrieved from https://itunes.apple.com

Tepper, F. (2017, January 3). Here's who fared best on dating apps in 2016. *TechCrunch*. Retrieved from https://techcrunch.com

Tikkanen, R., & Ross, M. (2004). Looking for sexual compatibility: Experiences among Swedish men in visiting internet gay chat rooms. *CyberPsychology and Behavior, 3*, 605–616. https://doi.org/10.1089/109493100420205.

Tinder Blog. (2016, November 15). Introducing more genders on Tinder. *Tinder Blog.* Retrieved from http://blog.gotinder.com

Tinder Inc. (2017). Tinder. *iTunes Preview.* Retrieved from https://itunes.apple.com

Turkle, S. (1996). Virtuality and its discontents searching for community in cyberspace. In J. Turow & A. L. Kavanaugh (Eds.), *The wired homestead: An MIT press sourcebook on the internet and the family* (pp. 385–402). Cambridge, MA: MIT Press.

Tyson, G., Perta, V. C., Haddadi, H., & Seto, M. C. (2016). A first look at user activity on Tinder. *2016 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining (ASONAM)* (pp. 461–466). San Francisco, USA. https://doi.org/10.1109/ASONAM.2016.7752275

Valocchi, S. (2005). Not yet queer enough: The lessons of queer theory for the sociology of gender and sexuality. *Gender and Society, 19*, 750–770. Stable URL: http://www.jstor.org/stable/27640849.

Wakeford, N. (2000). Cyberqueer. In D. Bell & B. M. Kennedy (Eds.), *The cybercultures reader* (pp. 403–415). London: Routledge.

Walker, J. R. (2014). *How we use selfies, blogs and wearable devices to see and shape ourselves.* New York: Palgrave Macmillan.

Ward, J. (2017). What are you doing on Tinder? Impression management on a matchmaking mobile app. *Information, Communication & Society, 20*, 1644–1659. https://doi.org/10.1080/1369118X.2016.1252412.

ward, k. j. (1999). The cyber-ethnographic (re)construction of two feminist online communities. *Sociological Research Online, 4.* Retrieved from http://www.socresonline.org.uk/4/1/ward.html

Whitley, R. (2017, January 5). What is the link between Tinder and mental health?. *Huffpost: The Blog.* Retrieved from http://www.huffingtonpost.ca

Whitson, J. R. (2014). Foucault's fitbit: Governance and gamification. In S. P. Walz & S. Deterding (Eds.), *Gameful world: Approaches, issues, applications* (pp. 339–358). Cambridge, MA: MIT Press.

Woo, J. (2015). Grindr: Part of a complete breakfast. *QED: A Journal in GLBTQ Worldmaking, 2*, 61–72 Retrieved from https://muse.jhu.edu/article/575376.