Online Ethnography

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Conducting an online ethnography involves applying ethnography to virtual and/or digital settings; it is therefore useful to precede an explanation of online ethnography by reviewing what an ethnography is. The term ethnography is sometimes mistakenly equated with methods (interviewing, observations, and other methods of interacting directly with people). In fact, ethnography is a holistic social scientific research approach, strongly rooted in anthropological traditions, with the following features.

Ethnographies are geared towards the study of human behavior and culture, and ethnographers seek to "[reveal that culture] through discerning patterns of socially shared behavior" (Wolcott, 1999, p. 67). Put differently, the goal of ethnography is to describe and analyze the lives, social worlds, and/or cultures of a group of people in a particular place at a particular time. Importantly, ethnographers seek to understand these phenomena from the perspectives of the people who live and experience them. Although ethnographers do not hold identical definitions of culture, they commonly use social interaction as a starting point for discovering and analyzing the larger cultures and cultural patterns of the people that they study.

Because the overarching goals of ethnographic studies are to describe and analyze the meanings that people attach to their situated activities, they generally fall under the interpretivist paradigm. Interpretivist scholars, whose work is both empirical and rigorous, assume that there are multiple realities in the world, and that these realities are continually informed, created, and recreated through people's social/cultural interactions (Boellstorff, Nardi, Pearce, & Taylor, 2012; Lindlof & Taylor, 2011; Tracy, 2013; Wolcott, 1999). Ethnographers set out to discover these realities from the perspectives of those who live them, that is, the research participants themselves. Given their research goals, ethnographers pose open-ended research questions. This is in contrast to positivist studies where the goal is to predict behavior; such studies typically pose and then test hypotheses, that is, informed guesses about what happens or will happen in the world.

While ethnographers make use of various data collection methods, both qualitative and quantitative, they depend upon sustained observation and/or participant observation. This is because ethnographies are highly contextualized accounts of human behavior and culture; they must therefore involve long-term immersion in a setting, that is, the continuous and attentive presence of a researcher in the place of study. While in that place, ethnographers observe the ways in which people engage in natural, everyday activity, seeking to understand it deeply from the perspectives of the locals. Ethnographers term the people that they study as research participants deliberately, viewing

them not as objects of study but as agential, authoritative parties in the research process, whose views are of paramount importance.

The data collected by ethnographers are primarily qualitative, but may be quantitative as well. In either case, ethnographers make significant use of their experiences, observations, and interactions in the field as they "decode" local realities. Ethnographers produce ethnographic accounts or reports, which are not only highly detailed descriptions of what their research participants do, but also an interpretation of the significance of those activities. These ethnographic reports may be written for academics, practitioners, or the public at large, and may accomplish various goals, whether theory-building, informing, and/or advocacy.

An online ethnography involves applying the ethnographic principles, perspectives, and methods described herein to virtual and/or digital settings. Related terms include virtual ethnography, online ethnography, cyber ethnography, netnography, and others; for a comparative review of these, see Isomäki and Silvennoinen (2013). Digital ethnographies began with the birth of the Internet in the 1990s and, while initially contested, they are now widely accepted in communication studies (Hine, 2000, 2008) as well as anthropology, education, human–computer interaction, political science, sociology, technical communication, and other disciplines. Online ethnography can be used to study a single virtual community (Manning, 2008), conduct a cross-cultural comparison of multiple online communities (Hanna & De Nooy, 2009), or examine hybrid (online/offline) communities (Keating & Mirus, 2003; Miller & Slater, 2001). In fact, online ethnography's highly contextualized, richly descriptive, interpretive approach is a natural fit for exploring culture in an unlimited number of technology-mediated spaces.

Like traditional ethnographers, online ethnographers tend to approach *culture* as something that gets produced and reproduced through social interaction, including the processes of developing, contesting, adapting, and utilizing symbolic terms, rules, social norms, and so forth. Because these meaning-making processes occur in online spaces as well as offline ones, applying ethnography to virtual spaces is a natural choice (Boellstorff et al., 2012; Gatson, 2011; Hine, 2000). Online ethnography helps researchers analyze the complex ways in which culture shapes and is shaped by the technological platforms on and through which it occurs (Hine, 2000, 2008). Given its focus on studying situated practice, online ethnography can be used to examine how culture and technologies connect to larger contexts, both online and offline. Digital ethnographies also have a heuristic value, and can be used to develop and refine theories of communication and culture.

Online ethnography is also an eminently practical research approach that permits researchers to travel easily and at a reduced cost to diverse, complex, and highly interesting virtual locales (Markham, 2005), many of which are international and intercultural. It is safe to say that there are an unlimited number of digital environments to suit nearly any area of scholarly interest.

The approaches that online ethnographers take towards their research projects are not new or radically different from those of traditional ethnographers (Hine, 2008); they do, however, face new methodological, philosophical, and ethical challenges as they explore online scenes, communities, and worlds.

Some online ethnographers begin projects based on their interest in a particular online community or virtual world. Others initiate projects because they are intrigued by culturally significant moments that they have experienced in digital spaces. Some start by reviewing relevant academic literature, from which they draw inspiration and develop research questions. Regardless of how they begin, online ethnographers (like all social scientists) must develop their familiarity with extant scholarship and think strategically about knowledge gaps that warrant attention.

Consistent with ethnography's positioning within the interpretivist paradigm, online ethnographers develop research questions (not hypotheses) because their goal is to describe and explain social, cultural, and communicative phenomena in virtual spaces. Online ethnographers might pose research questions about how people meaningfully engage in particular social activities in online environments, and/or the significance of online activities, places, and relationships. Similarly, some online ethnographers do close analyses of participants' situated activity in order to reveal larger cultural norms and/or intercultural communication processes.

In any case, ethnographers studying online environments must determine how to bound the virtual spaces in which they will do their work, and about which they will draw conclusions. This requires developing a sense of how the range of their virtual field sites can be demarcated or limited. Sometimes online ethnographers bound their sites by focusing on particular activities (Markham, 2005), speech communities (Miller & Slater, 2001), and/or communities of practices. It is also possible that online ethnographers will include a combination of interrelated online and offline spaces in their bounded field sites (Boellstorff et al., 2012; Miller & Slater, 2001).

Just like traditional ethnographers, online ethnographers must plan carefully, ethically, and strategically for how they will gain access to and spend time within their chosen sites. Often gatekeepers control that access, so online ethnographers must be prepared to professionally and persuasively make a case for their project. Equally importantly, online ethnographers must be ready to secure all necessary permissions from the people who they will be studying. In most cases, this means having the research proposal reviewed and accepted by the home institution's human subjects committee, also referred to as an institutional review board (IRB). Gaining IRB permission to proceed with an online ethnography is generally contingent upon having sound measures in place for securing the informed consent of all study participants, and being successfully prepared to protect participants' confidentiality as well as any data connected with them. The online ethnographer may also need to protect the identity of the entire virtual community, not just the particular individuals participating in the research (Markham & Buchanan, 2012).

Technological preparation is another important aspect of preparing for an online ethnography. The researcher must acquire all of the tools required to enter into and participate in the community as a functioning member. In addition to having reliable and fast Internet access, hardware (Internet-enabled devices, keyboards and/or controllers, headset, speakers, external hard drive for data storage, etc.) and software (applications, recording software, qualitative data analysis programs, and so on), monthly or yearly membership subscriptions to the virtual environment may be required. Learning how

to use these tools competently is a crucial and informative aspect of the online ethnographer's fieldwork experience.

Once adequately prepared, the online ethnographer is ready to "travel" to their selected field site. Even though the trip is virtual rather than physical, online ethnographers experience a strong sense of journeying into their virtual sites, exploring new territories, observing and interacting with the locals, and getting to know the virtual lay of the land (Hine, 2000). And, as with traditional ethnographers, online ethnographers must be ready to engage in observation and participant observation. As noted earlier, these methods are widely considered the hallmark of a true ethnography.

When conducting observations, ethnographers limit themselves to watching the activity in the social scene, whereas with participant observation they engage fully in the local scene, whether as a novice, a fully-fledged member, or something in between. Interestingly, in many online environments only watching without interacting can be negatively perceived as "lurking." Often ethnographers favor participant observation, since they believe that their research benefits from it, though full participation is not always practical or possible. In any case, it is advisable to consider both the positive and negative outcomes associated with observing and/or participating in online settings, and to make an informed choice about which route to take (Markham, 2005).

While present in the virtual field site, online ethnographers engage in a variety of complex and concurrent research tasks. First, they navigate the site, learning about its residents, its different spaces, and the activities that take place there. At the micro-level this might entail engaging in synchronous or asynchronous text-, audio-, and/or video-based interactions with other members. It could also involve reading and responding to posts, articles, comments, and other written materials in the field site (Markham, 2005). At the macro-level this could involve accomplishing the work-, social-, and play-related tasks that fuel the community's activities.

Second, especially if they are novices in the environment, online ethnographers are probably learning how to be competent community members. This involves building knowledge not only about how to get relevant tasks done, but also about local ways of speaking, handling conflict, operating, and the overarching netiquette guiding life in that online environment. The process of developing competency enables ethnographers to make better sense of situated meanings and to understand how they are related to and constitutive of the larger contexts (social, cultural, historical) within which they occur.

Third, online ethnographers establish and maintain relationships with research participants, often with an eye to identifying local informants (i.e., individuals with expert knowledge of the scene and what goes on there) and other potential interviewees. Recall that online ethnographers, like their traditional counterparts, view members of the field site not as objects of study but as agential partners in the research venture whose input and perspectives are critically important.

Fourth, and most importantly, online ethnographers must carefully and consistently document what they see, do, and learn during their observations and participant observations, that is, they must actively collect data. The fact that they are observing virtual communities makes using certain technology-based data collection methods a natural and practical choice.

While in the field, ethnographers jot down their observations on who they observe and interact with; the work that participants get done within the environment; routine and/or ceremonial events that take place there; styles and types of communicative activities; social norms and rules; features of the settings/spaces that they visit or spend time in; aspects of the technological platform and how it affords and/or constrains activity; and discussions that they observe or take part in, among other things. Online ethnographers may handwrite these jottings or, when they are conducing their fieldwork from a computer, they may type them using a word processing program. In fact, having word processing software running during online fieldwork sessions can be helpful as it allows the researcher not only to types notes and impressions, but also to capture relevant textual data (chats, posts, comments, URLs, etc.) by copying and pasting. At the end of each workday, while the information is still fresh in mind, these jottings can be transformed into full field notes (Emerson, Fretz, & Shaw, 1995).

In addition to writing down their observations, online ethnographers may create visual, audio, and/or video records of online activity. For example, using a computer's copy and paste functions can serve to capture text-based messaging and interactions, simply by copying material from the source and then pasting it into a text document. Since most computers have built-in capabilities for generating screenshots, online ethnographers may also create visual snapshots of what is happening on their screen. Built-in or third-party software audio recording programs can be used to capture sounds (whether planned or spontaneous conversations or interviews), while screencasting software can record all audial and visual activity occurring on the desktop. Audiovisual recordings can be transcribed, and the transcripts added to the dataset.

Website archival tools can also be used to capture large amounts of content, collections of web pages, and even entire websites (Lomborg, 2012). One of the challenges of online ethnography projects is that virtual communities, content, pages, and sites can be impermanent (Markham, 2005). Servers go down, companies fold, communities disband, and organizational cultures and missions change (sometimes dramatically). It is not safe to assume that online materials will be durable or permanent. By investing in a web archival solution that fits the project needs, online ethnographers can potentially save extensive records of the sites (including some types of user activity) that they are studying.

As online ethnographers review their options for collecting data, they must naturally consider all of the following: the costs involved in procuring tools; the technical specs required, including what operating systems are needed; and the probable learning curve, that is, how complicated and time-consuming it will be to get their systems up and running, and learn how to use them effectively. Whether they are generating field notes, screenshots, audio recordings, screencasts, or some combination of these, online ethnographers must be skilled multitaskers, because they are inevitably collecting and processing data simultaneous to engaging in the routine tasks that go along with their participant observer roles. What is more, they are relying on and developing the digital literacies required for (a) participation in their field site and (b) their chosen methods of digital data collection. While this may sound burdensome, these aspects of conducting digital ethnographies have benefits. The tools used to record online participant observation are relatively simple and easy

to use, and they can quickly and effectively capture large amounts of rich, complex information and data. Furthermore, capturing data in digital format allows for effective storage and, in some cases, analysis, for example, with qualitative data analysis (QDA) software.

A major incentive for doing ethnography is the opportunity to capture authentic data, that is, real rather than reported or hypothetical interactions between community members. To gather the richly contextualized, highly descriptive data required for a substantive ethnographic analysis, online ethnographers may combine observations and/or participant observations with other methods of data collection, such as interviews (O'Connor, Madge, Shaw, & Wellens, 2008; Salmons, 2009), focus groups, surveys (Vehovar & Lozar Manfreda, 2008), and collecting documents and other textual artifacts (Boellstorff et al., 2012; Marshall & Rossman, 2006). In this way, an online ethnographer's data corpus is likely to contain a combination of field notes; detailed records of participant interactions; interviews and interview transcripts; audiovisual recordings (Keating & Mirus, 2003); user-generated digital text (Manning, 2008; Markham, 2005); images and screenshots; or any combination of these.

Before building the dataset, the question of data storage must be given some thought. It is likely that the project will produce a sizable collection of files, with most (if not all) of them in digital format. It will be important to store these data in a secure and organized way, allowing both for their protection as well as their easy retrieval for analysis. Ideally the data will be stored on a password-protected device that can be kept in a safe, even a locked, location. Rather than save everything on one device, it is a good idea to ensure that a complete set of backup electronic copies are kept, perhaps on a password-protected external hard drive. To organize the data, it is helpful to develop a simple naming protocol, which is then consistently applied to all files. The naming protocol could include data type (interview, field notes, screenshot, etc.), the date and time that the data were generated, and other key information such as location or participant names. Files can then be sorted into folders by file type (e.g., all interviews in one file called "Interviews," all field notes in a file called "Field notes") with all project files nested under one master file. Note that the file types generated through an online ethnography project will be a major point of consideration when selecting qualitative data analysis (QDA) software.

Recall that online ethnographers are ultimately interested in discovering and explaining the significance of online work, play, social life, and/or culture, and in drawing connections between activity and sociocultural structure. Because of this, analyzing the data for an ethnographic project is an iterative process—ethnographers roughly formulate their driving questions, go into the field, collect data, examine the data, reformulate their questions, return to the field, collect and examine more data, and so on. An online ethnographer will likely continue this process, staying in the field and collecting new data, until rich points have ceased to occur and clear patterns have emerged through the process of qualitative data analysis.

Online ethnographers assume that there is order to people's online activities, and through qualitative data analysis they discover, verify, demonstrate, and articulate this order. Qualitative data analysis is an inductive process, meaning that claims are inferred

from the data. Like other qualitative researchers, online ethnographers carefully scrutinize the data, sorting it, coding it, looking for emergent themes, making inferences, and validating what they observe. Validation may be accomplished through checking back with participants (member checks) and/or testing agreement between multiple coders (intercoder reliability).

Since online ethnographers are interested in situated activity, they examine not only what people in online communities do, but also how their activities are related to the larger contexts (social, historical, cultural, experiential, etc.) within which they take place. Similarly, as they analyze their data, online ethnographers are attentive both to data instances (i.e., particular moments that they have documented) and to the documented field site as a whole. Ultimately, online ethnographers draw conclusions based upon the patterns that many pieces of data produce (Wolcott, 1999). By the end of the data collection and data analysis phases, online ethnographers are positioned to draft ethnographic reports, whether an article, a series of articles, or an entire book. The report will present the ethnographer's findings on the particularities of the digital community. Additionally, the report may include a persuasive argument on what these particularities reveal about social and cultural life in general, whether in that special community or in others, both on- and offline. Taken as a whole the ethnographic report should make the digital community, its people, activities, and its significance, understandable and relatable to non-members and the readership as a whole (Hine, 2000; Wolcott, 1999).

SEE ALSO: Big Tent Criteria for Qualitative Quality; Emic Approach to Qualitative Research; Ethnography/Ethnographic Methods; Observational Methods; Online Research Methods, Qualitative; Qualitative Analysis Software (ATLAS.ti/Ethnograph/MAXQDA/NVivo); Qualitative Methodology; Qualitative Research Question; Research Method Selection

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