Ethnographic Research 2.0

The potentialities of emergent digital technologies for qualitative organizational research

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Abstract

Purpose – This article aims to present current and potential uses of innovative social research methodologies which harness emergent technologies. This article also seeks to note ethical issues surrounding emergent technologies.

Design/methodology/approach – Specifically, the use of social networking sites (SNS) such as Facebook as well as their applications will be explored. The use of iPhones as data gathering devices will also be explored as an example of the utility of ubiquitous technologies to ethnographic work.

Findings – This paper finds that emergent technologically-mediated ethnographic methods are of potential value to organizational ethnographers and that methodological barriers can be overcome to best leverage new media technologies in organizational ethnography.

Research limitations/implications – This article has not been designed as a comprehensive overview of these social research methods nor as a primer to implement them. Rather, the main purpose of it is to begin to explore their potential applications to organizational research and to raise awareness amongst organizational researchers.

Originality/value – This article is original in its review of emergent digital research methods for qualitative organizational research. It reviews newer technologies and presents cases from the literature to highlight the varied methodological approaches implemented by organizational and other researchers in the field.

Keywords Internet research ethics, Organizational ethnography, Social media, Social networking sites, Ubiquitous computing, Virtual ethnography, Internet, Ethnography

Paper type General review

Introduction

CIBER's (2008) "*Information Behavior of the Researcher of the Future*" revealed the stark fact that "the Google generation", those born after 1993, overwhelmingly use search engines to begin an information search rather than using the resources of a library. Besides the fact that this signals fundamental shifts (both currently and in the future) in the praxis of research, it also marks an ascendancy, at least for the Google generation, of digitally mediated information over analog forms. If nothing else, it illustrates the turn to epistemology as partially grounded in the digital. Analyses of the Google generation (CIBER, 2008; Montgomery, 2007; Palfrey and Gasser, 2008; Tapscott, 2009) reveal marked changes in the way researchers of the future will seek out and process information/data/knowledge. This genre of work has and will continue to inform us on both future researchers and the future of digitally mediated social research.

Contemporary scholars are increasingly studying digital objects, virtual communities, and other digitally mediated entities, both inside and outside of organizational contexts. This paper does not seek to summarize or introduce their work. Rather, it seeks to outline

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some potentialities of emergent digital technologies for qualitative organizational research. The paper explores the qualitative data gathering potential of new emergent technologies for organizational research. Specifically, the prominent social networking site (SNS) Facebook is reviewed as an ethnographic research tool and the paper then examines the implications of ubiquitous computing, "Ubicomp", using the specific case of iPhones. Lastly, the paper examines the implications of these methods and ultimately evaluates current trends of how social networking and Ubicomp technologies are being judged, deciphered, and analyzed by organizational researchers.

Background

The literature on digitally mediated ethnographic research is emergent, but, over the last decade, constitutes an established corpus. The rise of "digital ethnography"/ "cyber-ethnography" highlights this (Ardet and Thome., 2004; Domínguez *et al.*, 2007; Hine, 2005; Dicks and Mason, 2006; Murthy, 2008). The former is ethnography which is digitally mediated and the latter is conducted wholly online and does not involve face-to-face ethnography. Though social media (e.g. Twitter) and SNSs (e.g. Facebook) are not "virtual worlds", they are not inherently incompatible with being sole ethnographic sites. However, they can be field sites in themselves or used as part of a multi-modal ethnography which could benefit from rapid data collection through short responses. However, SNS and social media are distinct from richly immersive virtual worlds such as Second Life, in which ethnographies have been wholly constituted/conducted online through focus groups, participant observation, and interviews (Boellstorff, 2008; Carter, 2005; Malaby, 2009; Tay, 2010).

Facebook

Social researchers have begun examining Facebook as a meaningful research space and to conduct ethnographic work on groups within Facebook as well as on the medium of Facebook itself (Martínez Alemán and Wartman, 2009; Boyd, 2007; Boyd and Ellison, 2007; Ellison *et al.*, 2007; Lampe *et al.*, 2006). However, research examining usage of Facebook often uses web-based questionnaires (Park *et al.*, 2009). Researchers are also able to use custom-designed SNS applications (i.e. Facebook "apps" as will be discussed later). Implementing an SNS-based application-driven tool sounds like a task in which most organizational researchers would not be able to complete. However, by working with application developers or institutional-based information technology resources, these applications can be cost-effectively deployed. Though not as easy as implementing web-based questionnaires on free sites such as SurveyMonkey.com and Zoomerang.com, the reach and power of application-driven survey research is phenomenal. For example, a Facebook application can pull images and a treasure trove of demographic, social, professional, and other data. Age, location, employer, and educational history along with favorite films, TV shows, and foods are easily accessed by off-the-shelf Facebook application code. The more difficult task for researchers is to identify users to target and to get access to them (Schoneboom, 2011).

On an ethical note, researchers must be extremely clear that their application is pulling this data – both to respondents in the application access page in Facebook as well as to their Institutional Review Boards (IRB) or equivalent research oversight committee. As you can see from Figure 1, Facebook applications have the ability to not only pull information from your profile but also those of one's "friends". Unsurprisingly, the ability to access data from the profiles of "friends" of respondents raises a rash of ethical questions. Furthermore, application access pages have become quite pervasive

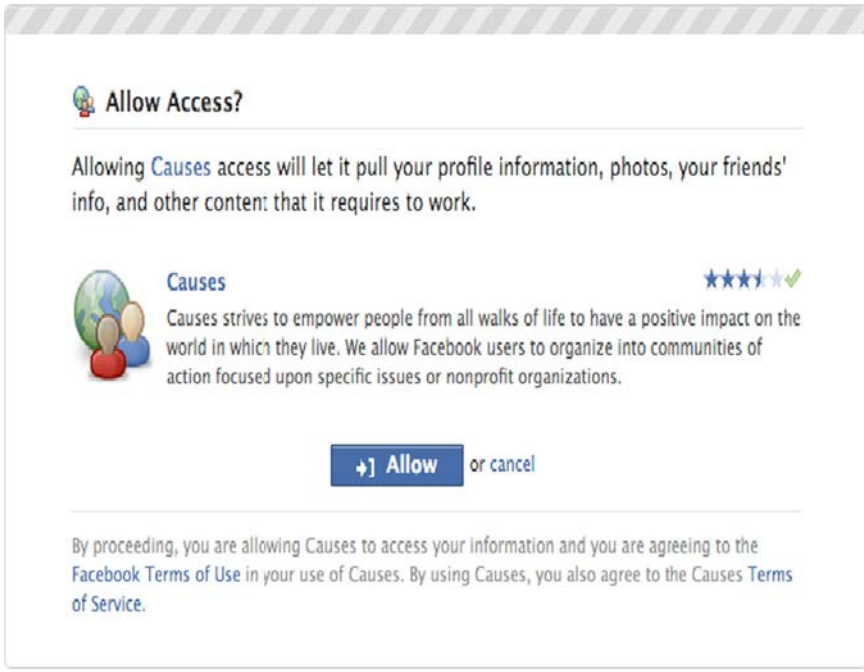

Figure 1.
A screenshot of a Facebook application access page

and potential respondents may be desensitized to them, clicking on "Allow" without reading the specific access they are granting. Again, without an internationally accepted ethical framework, the onus is on the individual researcher and their institution to make abundantly clear what their SNS application is accessing. Those developing qualitative research applications in SNS, such as Facebook, have successfully navigated these and similar ethical questions. For example, Gajaria *et al.* (2011) researched Attention-Deficit/Hyperactivity Disorder (ADHD) in Facebook groups and provide a clear methodological framework which treats the material as gathered from a public space, but anonymizes users and uses verbatim quotations only when searches on Google and Facebook did not reveal the identity of the posting individual.

Ethical questions aside, Facebook (and SNS in general) is an efficient means for gaining access into subcultures, niche social movements, and marginal/vulnerable groups. A Facebook group moderator, for example, can be an influential "gatekeeper" to an organizational research project, allowing a researcher to gain access to the group, its participants, its public forums, and offline gatherings. In my research of a subcultural music organization (Murthy, 2010), I worked closely with moderators of two Facebook groups to gain this level of respondent access. Several of my respondents mentioned that my having the endorsement of moderators of the group encouraged them to participate in virtual and face-to-face interviews.

Control of Facebook groups also varies tremendously. Some Facebook group moderators have control over the organization of these virtual communities, but most end up patrolling the group for malicious or inappropriate content. However, they differ from "traditional" gatekeepers in that the communities, scenes or groups which they allow a researcher access to may be wholly virtual. An introduction from them can easily lead to offline interviews/observation, a feat which is much more difficult

(though hardly impossible) if researchers themselves enter these groups. Furthermore, I have found in some cases that, if moderators send out an e-mail to group members asking them to complete a questionnaire or encouraging them to participate in the research project, response rates have gone up significantly. Additionally, researching Facebook groups as organizational communities could be a useful research method in a variety of contexts. For example, many companies have created Facebook pages which have active communities of consumers. For example, Finnair's Facebook page was used by consumers to contact the airline and inform other customers during the 2011 Icelandic volcanic ash incident (Jarvenpaa and Tuunainen, 2012). Other organizations have used it for marketing purposes. For example, alcohol-related companies have used Facebook for marketing through electronic word-of-mouth and through prize giveaways (Mart, 2011). Mart (2011) gives the case of how Mike's Hard Lemonade used a Facebook fan page to showcase the "Mike's Hard Punch Sweepstakes" which included giveaways for trips to London and a Les Paul guitar. Organizational researchers can examine these spaces to evaluate consumer value co-creation (Marandi *et al.*, 2010), how organizations attempt to enhance brand attractiveness (Lin and Lu, 2011), and the development of trust between business organizations and consumers (e.g. through direct responses to customer issues and consumers "liking" products). Slobin and Cherkasky (2010) argue that examining Facebook fan pages in research of retail organizations is particularly useful in gaining what they call a "360 view" of an organization's customers (i.e. gaining insights into their digital lives alongside insights gleaned from traditional face-to-face ethnographic research).

Some examples from my work

I have used and continue to actively use digital technologies in my qualitative research. My past work was focussed on exploring a transnational Muslim music subculture with a complex, geographically distributed organizational structure (Murthy, 2010, 2012). Because of high levels of Islamophobia in Europe, the USA, and Canada, musicians in this subculture turned to MySpace, Facebook, and Twitter to interact with each other and their fans. Some of the participants of this subculture only engaged in these online spaces due to apprehensions about attending physical events. Others used these online spaces to augment their participation in this subculture. I conducted ethnographic work on MySpace, Facebook, and Twitter, as well as using iPad touches, and GPS-enabled digital cameras in the field.

Face-to-face ethnographic work was a key part of my research. However, my use of digital methods provided access to groups of respondents who would have been inaccessible or much harder to reach through "conventional" ethnographic work. Specifically, as a male (and non-Muslim) researcher, most Muslim women, who were a small minority of the subculture to begin with, refused participation in face-to-face interviews. Some of the same individuals were very generous with their time via Twitter, e-mail, and Facebook. When interviewing some of them online, they mentioned their unease at being interviewed by a male researcher about what some Muslims consider to be a deviant subculture. Another group which I saw advantages in reaching via digital methods was individuals who did not attend events in the subculture. Because the bulk of the interviews were conducted in the field, the voices of these online participants would have been wholly invisible from my interview work unless I traveled far and wide across North America and Europe. Using Twitter, e-mail, Facebook, and MySpace I was not only able to interview some of these individuals, but

also observe their online activities and interactions and create field notes for each of these online-only respondents.

Though these aspects of digital methods were important considerations for my work, I also employed digital research methods to help visually represent a subculture which operated in politically contentious discourses (a space some lay observers did not feel comfortable casually engaging with). A key way in which I presented a visual narrative was to create a Google Maps mashup with Flickr (done in conjunction with my institution's IT department). My research team and I then used Canon PowerShot digital cameras with Eye-Fi cards, which are memory cards with Wi-Fi and GPS embedded, to take photographs of the subculture across several events during a major US tour. Photographs are automatically uploaded to the project's Flickr account with full GPS location information. A web page with the Google Maps/Flickr mashup seamlessly displayed all these images according to where they were taken, presenting a public visual narrative of our ethnographic work. This use of digital methods enabled me to accomplish several things which would have been quite challenging using conventional ethnographic methods. Specifically, I was not only able to share this visual material with the public (including participants of the subculture), but also I was able to present the photographs by location, which enabled the public to consume the visual narrative spatially. Lastly, but importantly, this narrative unfolded almost in real time from the field, which gave the public and my respondents the ability to interact with these visual materials in a timely manner.

My research has also leveraged blog technologies to keep private and public field notes. As I have written about my specific implementation of blogs and e-fieldnotes elsewhere (Murthy, 2011), I will only briefly mention my use of them. Using a WordPress-powered blog[1], I created public entries regarding my research and invited participants to respond via comments to blog posts or via e-mail. I recruited several respondents after their interactions with my research blog. Additionally, the Google Maps/Flickr mashup and the stream of related tweets from Twitter were embedded into the blog. The use of this blog was an important aspect of my combination of digital with conventional ethnographic methods. It is also a prime example of how digital work is not a threat to face-to-face work, but rather can augment the ways in which ethnographic work is publicly disseminated. Importantly, several of my respondents appreciated the existence of the blog as it provided one way in which they could see where my research was going and they felt more invested in the research by seeing concrete manifestations of its progress. I have used my work to highlight some of the specific insights I gained in practice. Though I successfully implemented these methods, they were not without difficulties. The next section will present some issues regarding digital ethnographic work more generally.

Methodological barriers

Integrating SNS like Facebook into organizational ethnographic work is not technically difficult. The real barriers are methodological. For example, Facebook is growing at an exponential rate (at the time of writing) and is an evolving entity. The ways in which certain applications work within Facebook or the ways in which data are stored can lead to some organizational researchers feeling a lack of control or inability to grasp these types of online spaces as they are constantly shifting and fluid. This should not be confused with forms of technophobia (Katsardi and Koutsojannis, 2008). Rather, biases against using new technologies in ethnographic research can be due to a misunderstanding of the technology or the lack of methodological tools to best

exploit these technologies. This happened with the telephone (Novick, 2008) and the internet (Beaulieu, 2004) in qualitative ethnographic research.

Second, because these internet spaces are largely publicly accessible web sites and research whose field site is based within, for example, Twitter and Facebook need an understanding of ethnographic methods which are cognizant of ethical considerations including privacy. "Tweets" (posts on Twitter), discussion threads, and even chat sessions continue to persist in cyberspace and digital ethnography must be sensitive to, for example, not identifying the identities of research participants. As Keenan (2008) highlights, the fear of data "getting into the wrong hands" is not an unfounded fear. internet data persistence (IDP) is definitely an issue. If an investigator posts requests for participation in ethnographic interviews on publicly accessible Facebook fan pages, the human subject confidentiality of the research could potentially be compromised as someone could use Google to identify the group the investigator researched. However, this data will continue to persist regardless of researcher uptake. The key is that researchers need to be cognizant of these methodological barriers and employ methods which have addressed these issues. Zimmer (2010) and Bull *et al.* (2011) both carefully outline approaches to ethical research in Facebook, making these perceived methodological barriers to surmountable.

SNS and internet-based platforms in general have caught the eye of some organizational researchers because of their efficiency of not only gathering data, but also storing it in CAQDAS-ready formats or as relational data to be studied using social network analysis (SNA) (Oinas-Kukkonen *et al.*, 2010). Custom-designed Facebook applications (and other SNS applications/widgets) can be coded to seamlessly export the data into popular qualitative research software packages such as ATLAS.ti, NUD*IST, NVivo, and HyperRESEARCH. Additionally, as discussed above, SNS applications can be easily coded to very efficiency gather a broad range of demographic data on a variety of variables (e.g. gender, network affiliation, social groups, age, region, and employment status). In smaller projects ($n < 100$), the output advantages of these uses of SNS applications may be outweighed by cost and other factors. However, in large-scale, multi-sited, and group-based research, the productivity advantages of preformatted qualitative data would most likely not only be cost effective, but also save coding time for researchers.

Multi-modal ethnography

In my research on a subcultural musical organization (Murthy, 2010), I combine offline physical ethnography which explores respondents' uses of SNS with Web 2.0-based digital ethnographic methods. Specifically, I used SNS applications to research respondents themselves (i.e. using Facebook to conduct interviews via chat or groups to conduct participant observation and collect qualitative data). A key benefit of using Web 2.0/SNS in organizational research is the ability to give one's respondents a position in your research as "stakeholder". If your research project uses Twitter, for example, respondents could be given the option to "tweet" in comments regarding their view of the project. Additionally, if research notes, fieldnotes or chapters/articles are posted in spaces which respondents have access to (e.g. public or user restricted blogs or groupware software), respondents can see firsthand how you, as a social researcher, have represented them and can comment on your observation/work. Some researchers may feel vulnerable being in this position while others will see it as an affirmation of "public sociology" (Clawson, 2007) where one's respondents can benefit/be involved in

the research project. Involving one's respondents at this level is controversial and poses its unique ethical issues.

Technically, involving one's respondents in these ways is straightforward to implement in that a comment function can be easily activated in off-the-shelf blog software such as MovableType and WordPress. In this software, comments could also be moderated before posting to ensure that they conform to the project's research ethics (i.e. respondent confidentiality). In terms of collecting data via blogs, respondents could also be given anonymized blogs so that they can publicly contribute to a research project, but their identities are protected. In my research, I have maintained project-specific blogs in which research results and work in progress have been posted in order to solicit respondent feedback (Murthy, 2011).

iPhones and other ubiquitous computing

The continued growth of ubiquitous computing, the presence of unobtrusive and relatively high-powered computing devices in our everyday lives, will profoundly affect the ways in which social research will be conducted. Many of our potential respondents have laptops or mobile devices with integrated web cams, enabling us to conduct interviews via free video conferencing software such as Skype. iPhones can also serve as an always present access point to virtual worlds such as Second Life, the popular virtual world operated by Linden Labs. Additionally, iPhones are now beginning to be used in corporate organizational settings (Hana, 2011). Using iPhones in the field presents exciting possibilities for time-sensitive group-based research which would benefit from real-time collaborative data sharing. For example, iPhones could be used by field researchers to create field entries real-time using Web 2.0-based software. These entries could include digital pictures and digital audio. Additionally, researchers could "chat" with each other and videoconference from the field, turning their Web 2.0-based software into a "research-space" itself. This type of method was leveraged by Di Leone and Edwards (2010), who used ETHNOKEN, an ethnographic video system which enables researchers to upload content "while still in the field and each [project] team member can watch the footage of the sessions they did not attend before discussing findings and emerging patterns within the group." They discuss the case of an ethnographic research team in which two researchers are working in Tokyo, two in São Paulo, and two in Paris. As they highlight, the teams all have tremendously diverse participants in their research. In this case, this technology enables more synchronous analysis of ethnographic data. iPhones can also allow field researchers (and indeed respondents) to participate in virtual worlds such as Second Life themselves. As Childers (2009) notes, Second Life can run on many platforms including the iPhone. Newer versions of the iPhone have Twitter functions embedded as a standard service.

Furthermore, the iPhone's video features are standard and enable interested organizational researchers to easily integrate video in their work. For example, a researcher investigating mobile workers could ask respondents to film themselves in different locales on their iPhone and upload the clips to a researcher's web site. Indeed, respondents can even edit their own videos prior to uploading using tools on their iPhone. This is part of a larger trend of technology-mediated "auto-ethnography" (Dumitrica and Gaden, 2009; Sobolewska *et al.*, 2009) in which respondents are able to contribute self-produced primary ethnographic material.

The use of iPhones as research tools also signals an age when ethnographers need not be lumbered by a backpack full of digital devices (digital audio recorder, a video

camera, laptop computer, digital camera, and, of course, article notebook). Additionally, creating coded entries in the field gives researchers the ability to efficiently code real-time. In group-led research, other field researchers would have access to coded field entries right away and could even "be there" (i.e. through a feeling of telepresence; Knorr Cetina, 2009) as they are reading entries and viewing videos/images real time. This phenomena of group researchers "being there" is not restricted to field notes, but rather live video feeds and the use of virtual worlds such as Second Life are the most immersive for remote groups of researchers. For example, if focus groups and interviews are conducted in Second Life, research groups could all potentially be present real-time regardless of the project's budget or the geographical dispersion of researchers. And, if using an Ubicomp device like the iPhone, researchers and respondents could come and go at times convenient to their schedules rather than their physical proximity to a desktop or laptop computer. When researching organizations with multiple sites around the world, this could be a valuable research method.

The use of iPhones in ethnographic work is very recent and scholarly literature on the subject is minimal. In terms of specific uses of iPhones in ethnographic work, Nugent and Lueg (2011) use iPhones to study the sharing of locations of individuals in a group and how this affects the study of group movement. Specifically, they argue that the iPhone's GPS functions are valuable for group-related research. Wynn (2009) discusses how he uses the iTalk application on his iPhone to record ethnographic interviews. He emphasizes the accessibility of iPhones and other mobile devices for recording material during ethnographic research and embedding audio clips into PowerPoint presentations (Wynn, 2009). Beddall-Hill *et al.*'s (2011) method of using an iPhone to study groups of students on geosciences field trips leverages the multiple data collection abilities of the iPhone. Specifically, they use the iPhone to collect video clips, photographs, and audio clips directly from respondents. Additionally, their field research team used the iPhone to take their own field notes and video diaries as well as record video of focus group sessions. The iPhone was also used by the ethnographers to mark pins on a Google Earth map using GPS to chart the movement of the students (Beddall-Hill *et al.*, 2011). This method could be similarly incorporated in organizational ethnographies which involve multiple field sites or movement during ethnographic observations. I have written elsewhere about my use of iPhones (Murthy, 2011). Specifically, I have used iPhones and iPod touches to take pictures in the field as well as create field notes using the WordPress application (Murthy, 2011).

Mobile phone applications need not be limited to iPhones. For example, Morán *et al.* (2010) deployed a custom-built social network mobile phone application in a hospital in Mexico using Windows-based software. They observed medical interns and physicians both in the hospital's wards as well as their interactions on the mobile phone application as part of their mixed method study of communication among hospital workers. Sampanes *et al.* (2011) conducted an ethnography of mobile workers through the use of photo diaries. Many respondents submitted photographs taken by their mobile devices and provided researchers with short responses which described the picture and its context (Sampanes *et al.*, 2011). Their research method was not phone specific, allowing a wider range of respondents to participate. Lai *et al.* (2009) developed an ethnographic research method which they term the "Life360"approach in which respondents are asked to complete short surveys on an hourly basis as well as taking a photograph with the phone's camera. They investigated respondents' location, personal activities, interactions with colleagues, and current mood. Lai *et al.* (2009) deployed their data collecting applications on smart phones with both a stylus and

keyboard so that respondents could have a choice of input format. Christensen *et al.* (2011) studied the mobility patterns of Danish children by combining ethnographic fieldwork with GPS tracker data and interactive questionnaires from their respondents' mobile phones. The respondents' mobile phones were used to conduct what Christensen *et al.* (2011) refer to as a "self-controlled rolling survey". Their respondents received text messages with survey questions (five per day).

Ultimately, using Ubicomp devices such as the iPhone in organizational research harnesses an existing technical skill set among some researchers. Specifically, they are likely to own and personally use smart phones, iPods, iPads, and other Ubicomp devices. Therefore, with little or no technical training, many organizational researchers can begin using Ubicomp devices for organizational research with a minimal learning curve.

Ethics and Web 2.0-based qualitative research

Organizational researchers are, of course, aware of the increasing shift of people's lives into the public domain. This also means that ethnographers need to be diligent in their treatment of continually emerging ethics issues and we, as scholars interested in vanguard digital research methods, must be collectively examining these issues. Moreno *et al.* (2008) discuss the ethics of using social networking web sites in the health sciences. Though their perspective is disciplinarily grounded, it is useful because a comprehensive ethics framework for organizational researchers does not exist. Light *et al.* (2008) call for an ethics policy in conducting research via Facebook and other SNSs. However, even in the health sciences, they note that ethics guidelines which critically consider Web 2.0/SNS do not exist. That being said, existing studies in the literature provide concrete examples of how to conduct ethical research using SNS and ubiquitous computing (Bull *et al.*, 2011; Hesse-Biber, 2011; Christensen *et al.*, 2011; Wilkinson and Thelwall, 2010; Young and Quan-Haase, 2009).

Another vital ethical issue is that if one obtains informed consent to quote from a web forum, Facebook group, etc., it is not always possible to provide complete and total anonymity through pseudonyms and the removal of identifying information. "Googling" identifying data can often make it very easy to reveal sources. One solution to this, which Boellstorff (2008) uses, is to not only anonymize screen names, but to also paraphrase quotations in order to "make them difficult to identify using a search engine." Williams (2007), in his research of the virtual world "Cyberworlds," received a request from one respondent who asked him to remove any reference to his distinctive emoticon as any publishing of it would make his responses instantly known by residents of Cyberworlds. These are issues unique to virtual worlds and internet spaces and researchers should take care to specify storage of ethnographic material, anonymization, and risks regarding identification of respondents through web searches in informed consent agreements. Furthermore, in proposals to IRB, academic researchers should be explicitly clear on possible ethical issues so that the shortcomings in technical knowledge on the part of review boards do not lead to ethical oversights.

Over the last two decades, social researchers have been developing ethical frameworks for emergent computer-mediated social research (Johns *et al.*, 2004; Sharf, 1999; Bruckman, 2002; Ess, 2002). When discussing Facebook, Twitter, and iPhones in the context of organizational research, there are vast potentialities. Indeed, a key aspect of this paper has been to encourage researchers to take advantage of the opportunities which SNSs and Ubicomp offer. Methods have emerged to guide organizational

researchers in their use of these Web 2.0 spaces for qualitative research work. The relied upon ethical framework of the Association of Internet Researchers (AOIR) remains critically useful to issues ranging from privacy to data collection and storage. Individual organizational ethnographers should not feel discouraged from using Facebook or Twitter for fear of lawsuits or the lack of support from some IRBs. Rather, online discussions such as those on the AOIR mailing list[2] are invaluable. Ultimately, conducting research using emergent technologies can have immense potential and a lack of clarity in terms of ethics should be viewed as a positive in terms of researchers being forced to carefully think through the implications and remit of their research.

Conclusion

This paper has introduced emergent technologies including SNSs and ubiquitous computing in the context of discussions on qualitative organizational ethnographic methods. Specific explorations of research methods which involve Facebook and iPhones have been highlighted to introduce organizational researchers to the potential (as well as drawbacks) of these technologies. This paper has also engaged the complexity of what constitutes "traditional"/"valid" ethnographic field sites (Beaulieu, 2004) and encourages organizational researchers to engage with online field sites by listening, seeing, and occupying virtual spaces firsthand. I have sought to emphasize that despite a comprehensive ethical framework for these emergent methods, this absence should not be viewed as a stumbling block as a corpus of ethnographic research has now been conducted within virtual worlds and SNSs. iPhones have also been successfully used as ethnographic research tools and I have provided specific examples of their use by ethnographers. Additionally, researchers have a wealth of information online that is evolving and designed to help researchers navigate the often complex ethical issues surrounding these spaces. These are key resources in overcoming any "technophobia" of these emergent digital spaces.

There is a critical importance in engaging these emergent technologies in organizational ethnographic work. Specifically, our respondents now spend significant portions of their occupational and social lives online. Additionally, much of this is mediated through ubiquitous computing devices. If we do not keep pace in our research methods, we risk not collecting data from spaces which are important to the daily lives of many of our respondents (e.g. Facebook). This can potentially affect the quality of our ethnographic work. Additionally, as workforces continue to become geographically dispersed, the technologies outlined in this paper allow ethnographers to be able to eclipse some of the limitations normally posed by geographical separation between ethnographers and respondents.

Notes

1. WordPress is a blog software provider. See www.WordPress.org/
2. http://listserv.aoir.org/listinfo.cgi/air-l-aoir.org

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