Short essay: Current issues in digital ethnography: is all ethnography digital?

Introduction

More than two decades ago, Lyman and Wakeford (1999) raised questions that have not been answered yet: *What is digital ethnography? What is the relationship between online and offline places? What is the relationship between technical artifact and social experience?* These questions are even more apt today than they were twenty years ago.

Digital ethnography is one of several terms that describe ethnographic research in digital domains, alongside Internet ethnography, online ethnography, virtual ethnography, netnography, cyber-ethnography, webnography, web ethnography and more. These methods are currently used in research, which are published by high-ranking peer-reviewed journals.

Current interdisciplinary scholarship agrees on the fact that digital spaces, which are sites for investigation (Hine, 2015), require new digital fieldwork techniques (Pink *et al.*, 2016) and methodological advice for the ethnography of virtual worlds (Kozinets *et al.*, 2020). This being said, we should not forget that online practices do not exclude offline experiences and that both the ethnographer and the study participants physically exist in offline spaces. This brings us back to the reflection about the connection that digital ethnography has, if any, with conventional ethnography and how the study of online practices can be combined and analyzed with that of offline practices. It is at the crossroads between these two overlapping dimensions that new discussions, reviews and research should be undertaken, which have remained so far poorly investigated by the literature. This essay discusses what has become of an analog ethnography in the digital age and provokes a timely discussion about "the digital" by reinforcing virtual and real binaries that researchers have tried to pull apart over the past two decades.

This synthesis is split into three sections. In the first section, I collate literature that theorizes concepts of the digital and the real in order to understand ethnography in a digital domain. In the second section, I discuss the literature that explains how the rise of technological advancements has come to affect social practices and ethnography. In the third section, I focus on different approaches to digital ethnography and challenges across social sciences to show how digital ethnography is currently used and how the digital has been put into practice with the methodology, thus highlighting the research gaps in the field.

Understanding the construction of the "digital and real"

What is digital? What is a digital object? Is it real, and does it exist? There are various types of digital objects, and some call them digital artifacts: blogs, wikis, personal profiles on social networking sites, web pages, geographic information systems and virtual reality models that lack clear identity due to the constant change they undergo (Ekbia, 2009; Elwell, 2014). According to common definitions, digital objects are composed of a set of bit sequences. If so, we know that they exist in the form of a link, file, text or a picture and that we can save them but we cannot preserve them. We can only preserve objects that have existed in space and time. Empirically, we can only preserve the reproduction of the electronic record, and even that will not be identical, because we will need to change, rename and reproduce it over time. So, is the digital real or not?

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The digital is having multivariate effects on daily life, and it has been crucial in ethnographic studies (Boellstorff *et al.*, 2012; Boellstorff, 2016). What do these types of claims presuppose when there have been difficulties in defining the digital (Horster and Gottschalk, 2012; Kavanough and Maratea, 2020; Bell, 2021)? As Duggan (2017) argues, "the term is slippery and has become difficult to grasp, which has been reflected in the many ways that it has been referred to in academic research and general discourse" (p. 7). Etymologically, digital comes from the Latin *digitalis,* from *digitus*, which means finger or toe, and the numerical sense is because numerals under ten were counted on fingers (Harper, 2024). According to Lavorgna and Holt (2021) and Boellstorff *et al.* (2012), digital objects are not simply bits and bytes, as proposed in digital physics or digital ontology. They consist of two main concepts: "First, that bits are the atomic representation of the state of information; and second, that the temporal state of evolution is a digital information process" (p. 381). If so, how do we make use of those atomic representations and digital information processes and claim them to be real? Those objects seem real to us when we interact with them by dragging, cutting, pasting, dropping, moving, modifying or deleting them, but they are not what we understand as real. This interaction, if real, would find its location in magic; in other words, they are beyond human experience (Deleuze and Wolfe, 1997). So, the space where those objects exist acts as a type of reality that allows interaction between real with the "half-real." Juul (2005), the author of the video game theory, tried to explain what "*half-real*' means: "This is when we play by real rules while imagining a fictional world" (p. 1). Interestingly, after almost 2 decades from the publication of Juul's (2005) statement, Czarnocka and Mazurek (2023), compared virtual with *fiction* as well: "There are two views on the existence status of virtual particles: in one, they exist like other material objects in nature; in the other, they are a fiction that is useful for explanation" (p. 4). The authors see the explanation of the "fiction" between existence and nonexistence and think that it requires an ontic status or a special ontic-epistemic status, which means that their cognition is so unique that it is essentially impossible to say if digital objects exist or not, as it does not fit in the law of physics.

If we search for answers in metaphysics, we will hardly be able to find them in philosophical works, especially before the industrial revolution. A lot of philosophers (Hume, Kant, Fichte, Hegel and Husserl) tried to explain the relation between the subject and the substance in their own ways and through their proposed theories to find out how the subject allows the substance to manifest itself as such and if the subject and the substance are different anyway. However, none of those philosophers brought into discussion the dimension of technology, and therefore, none of their theories would be actual for the present discussion of the digital and the real. Hence, the understanding of being will not be on the right path if ontology does not take into account the nature of technology (Lavorgna and Sugiura, 2022). Delueze and Wolfe found the explanation in the ever-renewed circuit of the real, the unreal, the half-real and the fiction. In their work entitled "The actual and the virtual" Deleueze and Wolfe (1997) see both the "actual" and the "virtual" as absolutely real. They explain that the "actual" has a concrete existence, while the "virtual' does not, but it is no less real for that fact. Here is how they explain it:

> There is no purely actual object. Every actuality surrounds itself with a fog of virtual images. This fog rises from more or less extended coexisting circuits on which virtual images are distributed, on which they run. Thus, an actual *particle* emits and absorbs more or less close virtualities of different kinds. They are termed *virtual* insofar as their emission and absorption, their creation and destruction, occur in a time smaller than the minimum of continuous *thinkable time*; this brevity maintains them henceforth under a principle of uncertainty or indeterminacy. Every actuality surrounds itself with circles of ever-renewed virtualities, each of which emits another, and all surround and react off the actuality (p. 19.6).

If the above-mentioned particles are the qualities of the object that we, humans, witness and experience, then it will depend on our mind and multivariate levels of consciousness to

recognize the object and its virtual particles. The way our mind and consciousness will recognize, know and identify the object and experience its qualities is unique to an individual. It will depend on that individual's state of consciousness, level of alertness, health, stress, skillfulness and many other factors. Besides, as Hui (2012) mentions, philosophers try to explain how consciousness allows to know the object, but they do not go deep into the object's own existence and how its existence conditions the process of knowing and being itself. "The investigation of digital objects must find a new relation between the object and the mind" (p. 390). Smythe *et al.* (2017) explain that materialist perspectives encourage us to avoid establishing predetermined distinctions and boundaries between entities, such as individuals, tools, furniture and so forth. "Rather, things are what they are in terms of how they are in relation with other things" (p. 20).

If we follow the claim that the virtual cannot be separated from the actual, then we will need to question the space they reside in. In other words, it is necessary to understand if virtual, digital or online spaces are the metaphorical use of the concept of space where the virtual and the actual rematerialize. We all know that technologies have become an inseparable part of our lives and that we live day in and day out in context with them, using them in all spheres of our lives. "Just as we would not deny that physical spaces include the landscape, seascape and soundscape, so they include the information space, the "semioticscape," where meanings and feelings are experienced" (Benyon, 2022, p. 16). We *search* on Amazon, *surf* the net and *inhabit* eBay to buy an item we need. This is to say, our shopping happens as if we visit the actual store and shop there physically. So, our actual physical being in this reality reaches out into the semiotic space, which means there is a multivariate interaction between space, technology, actuality, virtuality, information and experience. We face again the well-discussed argument that technology and people have always coevolved and been sociotechnical beings. While there are different perspectives on this, it is not easy to find answers to these questions without deeply questioning the epistemology of digital ethnography and examining empirical examples to understand how digital ethnography has been practiced and evolved.

Technological advancements, social practices and digital ethnography

It is often explained that ethnography is not just one or a set of methods but rather a cumulative way of observing, recording and writing about the world (Bryman, 2001; Hammersley, 2009). Therefore, ethnography is not a process fixed in time, but a process that walks with time and continuously reinvents itself to reflect the world. Indeed, the pursuit of digital ethnography suggests a definitive paradigm shift in the epistemology of ethnography, which, as Duggan (2017) argues, is not always necessary and often not helpful when examining contemporary culture and social practices mediated by information technologies.

"Digital ethnography matters because to some extent, digital environments are where all of our lives are lived" (Chowdhury *et al.*, 2022, p. 18). However, "Digital ethnography as a tool and practice to study contemporary culture sits uneasily alongside the direction of the literature for it inadvertently attempts to rebuild the binaries" (Duggan, 2017, p. 12). Therefore, it is time to prioritize digital ethnography in this age of physical separation, where most of our lives are being spent online (Chowdhury *et al.*, 2022).

In current literature, it is very hard to find ethnographic studies that did not use digital technology during their ethnography. This refers to data collection, recording and analysis, participant recruitment or data storage. This has happened for many reasons: digital technologies help ethnographers capture portable, detailed, editable, transferable and discreet video, audio recordings and screenshots (Bryman, 2001; Boellstorff *et al.*, 2012; Heider and Massanari, 2012; Kozinets *et al.*, 2018). The use of social media and specialized editing, annotating and analyzing software programs has been used to enhance novel

methods. One of them frequently discussed in recent literature is called *quantitative ethnography,* which blends qualitative and quantitative approaches to overcome the weaknesses of traditional methods when applied to big data. It uses statistical techniques to warrant claims about the quality of thick descriptions (Shaffer, 2017; Damşa and Barany, 2023). To develop this method, an international conference entitled "Advances in quantitative ethnography" takes place yearly in the USA and brings together published and in-process research practices. On one hand, this is an interesting direction because, as Hammersley (2018) suggests, ethnography is an approach that encourages possible methods to be used to produce a holistic understanding of cultural practices. On the other hand, considering qualitative associations of ethnography and research challenges that statistical or digital data will provide an objective picture of daily practices is still up for debate (Kavanough and Maratea, 2020; Zörgő *et al.*, 2021; Lavorgna and Holt, 2021; Lavorgna and Sugiura, 2022).

The overlapping labels (netnography, webnography, cyber ethnography, online ethnography and more) in current studies associated with ethnographic research have used traditional and new ethnographically informed methods to study virtual social practices. There are subtleties in what these terms mean. They refer to ethnography seeking to examine the Internet as a space of practice (Duggan, 2017; Cleland and MacLeod, 2022), but not all digital ethnographers suggest that online and offline practices must be viewed as separate. Indeed, Hine (2020) mentions that online and offline social lives are intimately interconnected. On the other hand, in their recent study, Hine *et al.* (2022) express concern about technology being an inseparable part of society when they discuss artificial intelligence and ethical risks for society. Such interpretation posits that there may be numerous truths regarding individuals' experiences and realities (Bhattacharya, 2017). Hence, the process of attributing meaning to truths and realities arising from individuals" experiences must be contextualized, incorporating nuanced details about social interaction, significance and communication. "The assumption in this approach is that human beings are active constructors of their social worlds and the meanings they make of that world" (Bhattacharya, 2011, p. 3). So, how to separate the two, technology and the social, and is there a need to do so?

Orlikowski and Scott (2008) argue that ". . . there is an inherent inseparability between the technical and the social . . ." and identify a genre of research that they ". . . refer to under the umbrella term: sociomateriality" (p. 434). Specifically, Orlikowski (2007) identifies five interrelated notions (materiality, inseparability, relationality, performativity and practices) that are considered to be involved in it. However, these notions appear to be only selectively acknowledged in the existing literature (Jones, 2014). Sociomateriality marks the recognition that social and material are "inherently inseparable" and "constitutively entangled in everyday life" and that "there is no social that is not also material, and no material that is not also social" (Orlikowski, 2007, p. 1437). Several organizational researchers, such as Hardy and Thomas (2015) and Faraj and Pachidi (2021), treat the social and the material as ontologically separate but empirically entangled. However, Orlikowski and Scott (2023) believe that ". . . the tendency to analyze separate entities, study mutually dependent ensembles, or investigate co-constitution is less effective in a world in which most work is 'digital work' and always already materially enacted in practice" (p. 5). In other words, this means the research I conduct is enacted in entanglement with *the way* I research it. This is an onto-epistemological statement and Barad (2007) explains it as:

> We don't obtain knowledge by standing outside the world; we know because we are of the world. We are part of the world in its differential becoming. The separation of epistemology from ontology is a reverberation of a metaphysics that assumes an inherent difference between human and nonhuman, subject and object, mind and body, matter and discourse (p. 185).

In this case, there is no privileged position from which knowledge can be produced, online or offline, digital or real, because the researcher is of the world. So, since all researchers are from

around the world and they produce knowledge differently, the researching phenomena will be the methodological practice of questioning the effects of the research steps on the produced knowledge. Barad (2007) neologized this as ethico-onto-epistemology of knowing in being, which points to a distinctive strength of agential realism by including ontology, epistemology and ethics.

Given this argument that all practices are always sociomaterial, on what basis should ethnographers select materials for the analytic account among the vast arrays of practices? Moreover, how should the researcher grasp the sociality and materiality of the objects (online or offline, virtual or real) that are often taken for granted? Although there is a consensus on the significance of materiality, the literature on sociomateriality exhibits notable inconsistency in its interpretation of this concept. "Thus, even within Orlikowski's (2010) account, materiality is variously identified with the material, artefacts, the tangible, machine, nonhuman, and technology (and there is a similar variation in the terms used for the social aspect of sociomateriality, including the social, human, people, organizations, and work)" (Jones, 2014, p. 897). Certainly, considering these terms as equivalent would likely contribute to potential inconsistency in discussions on sociomateriality when it comes to the digital.

The materiality of digital technologies is debated by some scholars (Leonardi, 2013; Yoo *et al.*, 2010), who argue that not all digital technology has a physical form and existence. Commonly, in the Oxford English Dictionary, materiality is defined in terms of physicality and solidity. However, several authors (Orlikowski and Scott, 2008, 2023) use the term to refer to algorithms and data and the quest for mechanisms that clearly define *the material* and establish connections between *the social* and *material dimensions*, visible and invisible dynamics over time and space, providing an explanation for how social and material evolve into their current states.

Unlike these scholars, Barad (2003) argues that matter is not simply citationality and that "The dynamics of intra-activity entails matter as an active 'agent' in its ongoing materialization" (p. 822). So, if the concept of intra-activity dynamics involves the active participation of matter in its continual materialization, it is through these practices that phenomena acquire significance and relevance. The reconceptualization of materiality presented by Barad (2003) allows for a renewed appreciation of the empirical world, albeit with the recognition that the objective reference point is phenomena rather than the apparent immediacy of the world." What constitutes the "human" (and the "nonhuman") is not a fixed or pre-given notion nor is it a free-floating ideality, [. . .] material apparatuses produce material phenomena through specific causal intra-actions" (Barad, 2003, p. 823). In summary, arguments that solely emphasize the materialization of *human* and *non-human*, *real* and *virtual* overlook a crucial aspect: the practices involved in delineating the boundaries between human and non-human, real and virtual are inherently intertwined with specific materializations.

Different approaches to ethnography

The interconnection of online and offline lives has potentially significant implications for ethnography. Rather than seeing these forms as discrete, Dicks *et al.* (2006) suggest an approach to ethnographic work called *multimodal ethnography*, which sees meaning as emerging from the fusion of differently mediated forms into digital, "multi-semiotic" modes in which meaning is produced through the inter-relationships between and among different media and modes generated by users. Horster and Gottschalk (2012) think that user-generated data is collected in natural settings and therefore, must be captured in a systematic way called *webnography*, which, like quantitative ethnography, aims to merge quantitative and qualitative approaches on virtual platforms so that the semiotic codes of any given target group can be extracted efficiently. Hine (2000) described ethnography conducted in online

settings as virtual ethnography and later, in 2015, changed her approach and rephrased it as ethnography for the Internet. Kozinets (2002) introduced *netnography* as an adaptation of the method for online communities as distinct social phenomena rather than isolated content. Dirksen *et al.* (2010) labeled ethnography in online spaces as *connective ethnography* and argued that the field site must be a heterogeneous network mapped out from the social relationships of the subjects and their connections to material and digital, physical and virtual. Observing and studying online practices has encouraged ethnographers to compile new approaches and methods of data collections and analysis. This suggests that digital ethnography is developing alongside other approaches and methods, resulting in many digital practices studying life online.

Duggan (2017) raises a serious concern about *non-media-centric* approaches to digital ethnography and explains that "this form of digital ethnography is likely to occur through ethnographic engagement with life on screen as it is with life off-screen" (p. 12). A group of scholars agree with this argument and think that it targets to explore the *blurring* of distinctions and aims to produce a holistic picture of life that is produced, represented and lived in the digital age (Ng *et al.*, 2017; Lixia *et al.*, 2017; Jocevski, 2020). An example of this is Miller and Sinanan's (2014, in Duggan, 2017) research, in which the authors did participant observations and interviews with webcam users. They argued that the use of webcams was determined by the cultural context in which they were used and not by the capacities of the webcam as a technology and therefore, to observe only those feeds would not have provided the holistic perspective they were seeking. Similarly, Hobbis and Hobbis (2021) highlight the important role of the social web and introduce the *ethnography of deletion* to demonstrate the limited capacity, reliability and fragility of digital storage through a non-media-centric ethnography of data management practices.

As we can see, there are different approaches to ethnography, and many questions remain unanswered when it comes to unpacking the challenges of digital culture. Cera (2023) raises a concern about making claims about groups in the absence of identifiable information. Duggon (2016) explains that these complexities cause conceptual problems that muddy what researchers might mean when they talk about life in the contemporary world. ". . . adopting a paradigm of digital ethnography continues to be potentially problematic, for it helps to reinforce the real/virtual and online/offline binaries . . ." (Duggon, 2016, p. 2). Newmahr and Hannem (2018) claim that ". . . ethnography stands at the brink of erasure" (p. 21). So, is all ethnography digital now, and if not, where should we draw the line between the two?

Several scholars have explained that drawing lines between conventional and digital ethnography is extremely hard to do because such lines are blurred (Forlano, 2009; Frith, 2012; Boellstorf *et al.*, 2012; Duggan, 2016; Forberg and Schilt, 2023). Elwell (2014) explains, "Ubiquitous computing signals a fusion of the digital and the analog in everyday experience whereby it becomes impossible to tell where one begins and the other ends as the two are seamlessly integrated" (p. 235).

If that is the case, is there a need to even question what remains conventional or analog ethnography in this digital world?

Ethnography inherently involves a process-oriented approach to studying sociocultural practices, and this process is not fixed in time, place or technology. This process gets updated with time and reinvents itself to reflect, record and write about the cultures of the time. Therefore, as the era has transitioned to virtual, we are indeed observing a paradigm shift in the epistemology of ethnography. As Barad (2012) explains in their book, "What is the measure of nothingness? Infinity, Virtuality, Justice", ". . . the common portrayal of quantum vacuum fluctuations as an arena of *covert virtual activity* – particle-antiparticle pairs rapidly coming into and out of existence, getting away with something for nothing if only it happens fast enough that we can't know about it, that is, that we can't actually count any divergences from pure nothingness, like a banker playing fast and loose with accounts, taking money out

and paying it back before anyone notices anything missing from the ledger – is of questionable validity (p. 3). Hence, as long as individuals maintain a physical presence, there will remain a strong rationale for *being there*. However, the concept of *being there* has already undergone significant changes in our day and time. The essential part of the ethnographic practice, being, *to be there*, presently claims something for nothing (Barad, 2012), since people we want to understand are physically present but digitally somewhere else. Therefore, the definitions found in the literature about what conventional and digital ethnographies are similarly mean something for nothing at the end of the day. This is because the transition to digitalization is driven by intra-activity dynamics, where matter actively participates in its ongoing materialization (Barad, 2003). Therefore, there is no need to even question what persists as conventional and analog ethnography in this digitally-driven world of continuous materialization.

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