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Ethnography goes online: towards a user-centred methodology to research interpersonal communication on the internet

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Abstract
Ethnographic research is increasingly concerned with how the internet operates within our everyday life. This article attempts to offer a methodological contribution of online communication and an exploration of initial empirical data generated with this methodology. The article calls for a specification of how ethnography can be applied appropriately to the study of relationships online. It departs from the real versus virtual dichotomy, offering a user-centred methodology to study interpersonal communications on the internet. It suggests the use of three main strategies to pay tribute to the characteristics of uses online: multi-situated, online and offline, and flexible and multimedia data collection methods. This approach facilitates a holistic analysis of the way in which social information and communication technologies operate within society in everyday life. It deals with the problem of defining the setting of research online and proposes an expanded ethnography. The article specifies details of this methodology for research into interpersonal communications and emotions online. It does so by drawing on empirical data generated in a study on everyday life and emotions on the internet. Epistemic questions related to this methodological approach will also be discussed. Overall, the exemplification suggests that the methodological approach proposed here is able to capture the uses and understandings of the internet.

Keywords
qualitative research, ethnography, internet, interpersonal communication, emotions

Introduction

It is a growing concern of ethnography to incorporate the internet and social information and communication technologies (SICT) into its realm of research and methodology to

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achieve a more up-to-date understanding of current social life. A significant body of research deals with the social effects of social communities on the internet (Baym, 1999; Carter, 2004; Gajjala, 2004). But studies are less numerous when we look at uses of the internet in a holistic way, scrutinizing its role in everyday life as a crucial part of communication processes and interpersonal relations (Bakardjieva, 2005; Baym, 2009). Moreover, the role of emotions in online communication is still underexposed (Derks et al., 2008).

These days the internet has become an essential communication and information media, and using the internet we have found new ways of communication as we are immersed in the Information – and communication – Society (Castells, 1996) in several tasks during our everyday routines. Through its uses internet spaces are being constructed, re-sketched and negotiated, while the uses also change constantly.

Communication mediated by information and communication technologies (ICT) is part of our everyday life (Bakardjieva, 2005; Clegg Smith, 2004; Mann and Stewart, 2000; Vayreda et al., 2002). This includes social life, which the internet has penetrated quite subtly – disappearing into the background as a taken-for-granted aspect (Bruce and Hogan, 1998; Star, 1999). The term social information and communication technologies (SICT) is used here to refer to all information and communication technologies that we use to communicate with each other.

In this context, it is no longer useful to differentiate between the real and the virtual in our everyday-life social interactions (Matei and Ball-Rokeach, 2001). Boundaries between online and offline communications can be considered blurry and vague, regarding the message, the situation and the interactive act (Carter, 2004; Haythornthwaite and Kazmer 2002; Salaff, 2002). I will argue in this article that everyday life takes place on the internet: there is no difference between online and offline interpersonal communication (IC). Indeed, online and offline social interactions are often intrinsically linked and we need to expand our methodological toolbox to better capture this social reality

The perspective adopted in this article thus advocates an exploration of the internet based on uses and understandings of the technology (Grint and Woolgar, 1995). The theoretical outline has to provide a discussion about how research can be designed in a most meaningful and useful manner for understanding how individuals contact other people, how they communicate and how they create and maintain personal relationships online. So how can we explore social interactions online – and emotions in particular – and which research method is most appropriate to do it? The proposal is to explore these questions through an ethnographic study and to adopt it to the specificities of online communication as part of everyday-life interactions. This focuses on a particular instance of internet use instead of one particular internet technology, service, site or application. I refer to this methodological position as an 'expanded ethnography' as it tries to capture individuals' use of online communication in a holistic manner. It is important to point out that this work is constructed within a body of research that places research units at the micro-level of analysis rather than the macro-level. Its asset is to achieve a deep understanding and knowledge.

This ethnography uses quantitative data to settle the research field and to establish trends in the links between online and offline interactions. After a careful sampling of participants drawing on evidence from the quantitative data reviewed, participants

determine the setting of research. The research strategy hence takes into account that internet users perform on several sites or services simultaneously and connect from several places. It also addresses the multimedia character of SICT, generating a multimedia dataset. Eventually, the expanded ethnography is necessarily multi-situated, multimedia and uses online and offline techniques.

The article is organized in five sections. First, I will define ethnography online and review critical issues around virtual ethnography. Second, I will explain and exemplify details of an ethnography conducted to analyse interpersonal communications and emotions online. This includes: 1) a description of the macro-perspective that provides the setting of the micro-study; and 2) a description of the methodology and research strategies adopted. Third, I will develop an expanded ethnography illustrating its application with examples from a study on emotions with Spanish users of SICT in 2009. Fourth, I will highlight epistemic questions related to the expanded ethnography, paying special attention to its limits and ethical issues.

Facilitated by the discussion of empirical data I will eventually depict what I suggest is a more fruitful methodology for exploring interpersonal relationships online. This will constitute the basis for establishing an expanded ethnography that is able to capture online communication more concisely and more sensitively.

Ethnography online: definition and critical issues

The development of the internet in the last few decades has opened a discussion about ethnography online. This raises classical ethnographic debates that need revisiting, as the role of the researcher and the observability of social phenomena. Besides, so far online ethnography usually has been conducted around sites and services – as blogs, chatrooms, forums, etc. – where the researcher could not physically be present (Carter, 2004; Hine, 2000; Lysloff, 2003). This hampers careful and informed interaction of researcher and participants, usually one of the main strengths of ethnographic research. In this section I present an ethnography based on a user-centred approach to overcome these limitations.

Ethnography is based on a reflexive position that allows the observation of how people construct, re-construct, and make meanings – of the internet in this case (Hammersley and Atkinson, 1995: 25). Nowadays our social world takes place in a face-to-face environment as well as in an online environment. Ethnography analyses human practices in the context of culture and now the internet is part of our culture, with meanings, symbols, and a 'system of conceptions expressed in symbolic forms by means of which men communicate, perpetuate and develop their knowledge about attitudes towards life' (Geertz, 1973: 89). More generally, the objective of any ethnography is to describe the lives and experiences of people and, in doing so, the ethnographic researcher is required to be accurate, sensitive and reflexive towards his/her subject/object of analysis and the context in which it is acting and performing.

An ethnographic approach supports the purpose of inquiring social phenomena of interpersonal relations on the internet for several reasons: ethnography has the ability to explore the scope of interpersonal interactions as such while also taking into account the lack of face-to-face interaction and the lack of a traditional notion of place in which to

ground fieldwork. Here, the field is the cyberspace and this opens epistemic questions that I will point out later.

The underlying ontological position of the ethnography based on a user-centred approach suggests that reality can be known objectively and subjectively. So, social phenomena are both objectively existent and subjectively perceived; they can thus not be analysed through reductive strategies. This complexity recommends combining qualitative and quantitative methods. Then, the methodology proposal is interested in understanding the present through qualitative data whereas quantitative data will draw the framework or context where the ethnography takes place (Scott, 2009).

There are some critical issues that have to be addressed in ethnographic research online before the approach can be spelt out in more detail: the real-virtual dichotomy; the fast development of technology; the simultaneousness of access both in terms of services used and places from which to access the internet; the multimedia character of the World Wide Web and the specificities of the Web 2.0.

In order to overcome the postulates of virtual ethnography (Hine, 2000), which I consider unconvincing, the idea of an expanded ethnography on the internet could be helpful. I do not favor the term *virtual* ethnography, which seems to assume that ethnography is conducted in the location of the internet only. Ultimately in this logic, virtual ethnographies consider that the virtual realm is something different to the real word (Lysloff, 2003) and propose a virtual-real dichotomy that contradicts my theoretical position. The term virtual ethnography appears to be adequate only if the inquiry takes place in virtual worlds, such as *Second Life* or *World of Warcraft,* but not if we inquire into everyday communications and interactions carried out online but in fact intrinsically linked to the face-to-face communications. What has been called *virtual* ethnography is no more than ethnography conducted to study the live experiences of people regarding the internet. I argue that 'virtual' ethnography is nothing different from ethnography more generally, apart from some research decisions regarding the particular field and location of research. For me the appropriate methodology for studying social interactions on the internet in the everyday life needs to scrutinize in detail – sensitively and reflexively – the ways in which SICT are experienced in use both online and offline.

A second problem with applying ethnography methods to online forms of interactions is that research usually chooses a specific site as if physical boundaries could be applied to the internet (Escobar, 1996; Ruhleder, 2000; Schaap, 2002). In fact, defining the setting in online ethnographic research is a critical issue (boyd, 2008; Garcia et al., 2009). Virtual ethnographers try to fit the traditional meaning of 'fieldwork' to the internet, although recognizing large differences to the traditional 'real word settings' (Forte, 2004; Hine, 2005; Lysloff, 2003). Research tended to focus first on specific sites, as chat rooms or multi-user domains (MUD), for example (Carter, 2004; Donath, 1999; Kendall, 1998; Vayreda et al., 2002), and more recently on specific communities or social networks, such as blogosphere or MySpace (boyd 2006), which still give us a limited understanding of everyday life in the internet and the various intersections between different sites and uses. This is especially important as communications and technology never develop in one setting alone.

The natural performance of the users as actors in several sites and through several applications does not allow for such a constructed limitation of fieldwork. People use

email, Social Network Sites (SNS), Instant Messenger (IM) and other applications at the same time. Moreover, users can answer the telephone, and talk with somebody face-to-face more or less simultaneously. Users multitask online and offline. Moreover, the internet is no longer exclusively accessible with computers but it is moving across devices (mobile phone, PDA, laptop) and across places (home, work, public places). It follows that observation and participation in just one setting in ethnographic research will give a limited, partial and fragmented idea of how people communicate on the internet.

A third problem for sociology in this area is the high pace of technological development. This phenomenon of 'fast developing objects of analysis' condenses the 'internet time' (Haythornwaite and Wellman, 2002). Ethnography in this dynamic arena eventually necessitates a 'technologized' researcher (Lash, 2002, Lunenfeld, 2000). Moreover, paradoxically, in order to achieve reflexive, critical and precise descriptions of internet phenomena we need both to 'speed-up' to follow our fast-moving objects of analysis and to 'slow-down' to understand them properly. In this respect, and in order to simplify the issue, ethnographic studies on the internet usually tend to define the field of research in terms of specific services, applications or sites. Since these online settings are constantly changing their features and capabilities very quickly, so do their uses. Sometimes this acknowledgment leads to results that are related to a specific technology rather than telling us a lot about the meaning of communication on the internet as such. They are more concerned with the features of the technology than with the forms and meaning of social interaction online.

A last critique is that ethnographies on the internet have often taken advantage of the written text produced on the web. Until recently, it was difficult to obtain other data. Today, however, Web 2.0 confronts the researcher with very different sets of data (sounds, videos, pictures, etc.). Yet, so far, research and theory have failed to appropriately consider multimedia data, giving an over-emphasis to the textual aspects (Mann and Stewart, 2000; Murdock and Pink, 2005; Pauwels, 2005).

Given all of the above, I propose a multi-site, multi-media and user-centred methodological approach to overcome the described limitations.

Conducting an expanded ethnography on emotions and interpersonal communications online

The research project I conducted by the help of ethnography has scrutinized the role of emotions in IC on the internet. It investigated how people establish and keep interpersonal relations on the internet. Can emotions be transmitted in ICs through the internet, and how does the emotional IC on the internet work? The already observed success of Facebook and Twitter raises another underlying question: why do people feel the need of IC on the internet? To answer these queries, I generated data from six Spanish internet users according to a theoretical sample.

This project piloted an expanded ethnography and offered an analysis of everyday life on the internet, especially focusing on emotions and interaction in online communication processes. Findings provided a more accurate analytical categorization (taxonomy) for social interactions online. Results also offered dramaturgical and cultural insights and described emotional behaviour online.

Defining the setting

The contention of data and context facilitates the emergence of a methodological proposal and the specifications of the user-centred approach to ethnography 'online'. Facts about user behaviour are discussed in the context of the macro-perspective to later design a contextualized and holistic 'expanded' ethnography.

In Spain – where I have been conducting this research – 22.9 percent of the people questioned in a survey conducted by Telefónica in 2008 (Fundación Teléfonica, 2009) use email to communicate with friends and family, and 13.1 percent use an instant message (IM) service. On a more detailed account, the services most frequently used by Spanish internet users are email (85.6%), instant message (52.9%) and chat (47.0%), whereas participation in social network sites (SNS) (9.5%) is increasing. This confirms that interpersonal relationships are created and maintained on the internet among Spanish users and that communicating with others is apparently one of the main activities online.

Very importantly, as data suggests, people tend to communicate with several media using multiple channels, among which several computer-based channels. This means that a multiplicity and simultaneousness of uses has to be taken into account when constructing a research design and methodology and links back to one of the methodological critiques of online ethnographies that I made earlier.

Summarizing, individuals in Spain have been using the internet increasingly often during the last decade and communication is one of their main activities online. Though there is no common sense among scholars about the scopes and limits of social interaction online[1] (Boase and Wellman, 2006; DiMaggio et al., 2001; Haythornthwaite and Wellman, 2002; Wellman et al., 1996), the importance of the internet for individual communication cannot be denied. However, the success of social network applications like Facebook, which has more than 350 million active users (Facebook statistics in November 2009),[2] and other social network sites in Europe allows for the assumption that maintaining ICs is an increasingly frequent task and individual activity on the internet. The growth of Facebook among Spanish users amounted to an impressive 132 percent from January to July 2008.[3] This is why this research establishes a strong demand to study this phenomenon in more depth and offers a methodological contribution to this strand of literature.

Data collection methods

The ethnography took place in three phases in an iterative and reflexive process: first, it implied observing general interactions in several SICT (such as Gmail, Google Talk, MySpace, Twitter, Facebook, etc.) and an analysis of quantitative data to design a theoretical sample and obtain a better understanding of the setting. This phase lasted six months. It was followed by a participant observation phase focused on interaction with six users. In this second phase, moreover, I conducted two interviews with each participant, one initial interview before following them online and the other in retrospect after that. Each user was followed for five weeks. In order to maintain the manageability of the sample and to facilitate data analysis, I have initially only generated data from two participants for probing and further operationalizing concepts. After that, I undertook an

exploratory coding that resulted in a set of categories. These categories were later applied to the full dataset. In the last phase, I asked each participant to keep a routine diary of his/her internet connections and interactions during four days within the time of participation for later analysis.

Sample

Six Spanish frequent users of the internet form the sample. Being Spanish is a necessary precondition for me to be able to capture the meaning in my mother tongues (Spanish and Catalan). I have defined a 'user' as an active contributor in the shaping of technology. An interesting definition of frequent user appeared in a Spanish newspaper. A person explained: 'I have a virtual life. I spend the day in front of a screen and managing a keyboard. Even with my friends I speak through email. We are many people living in this kind of bubble' (*El País*, 21/06/09).[4] This definition implies people who are keeping or setting up interpersonal relationships online. Furthermore, according to the report *La sociedad de la información en España* (2009), in 2007, 29 percent of Spanish internet users could be considered frequent users, the same percentage as in Europe overall. Yet, I do not completely agree with the quantitative definition of user this report gives – everyone who uses internet more than six hours per week – which does not pay tribute to the fact that being a frequent user is not merely about the time of connection.

I used a theoretical sample, selecting individuals according to their capability to give insights for developing theory (Glaser, 1978; Glaser and Strauss, 1967). I first selected two participants and after a first analysis the other four. The initial observation phase informed this choice. The first two participants were selected under the condition of being frequent internet users, according to gender and age (one male, one female, both in their 30s), and related to their motives of using the internet. The first user (35 years old) was selected on the basis of his job, which requires being online most of the working day and his work inside a network that mainly communicates through the internet. The second user (31 years old) was selected because she lives far from her family and friends so she mainly uses the internet for personal reasons to stay in touch. In order to include a variety of different people, I then observed and interacted with males and females, older and younger, and, arising from the developed categories, users that mainly use the internet for professional or private reasons, from different and several devices and from different places, informing the theoretical sample.

The third user (24 years old) is a young woman actively involved in the SICT, although she lives close to her family and friends. Her work requires a lot of social networking through the internet. The fourth participant (20 years old) works and studies journalism, so again he is involved with the media professionally. The last two represented older users (41 and 51 years old) and it was more difficult to access them; one was selected because he was connected a large number of hours throughout the day through his mobile phone, the other because she uses internet to socialize and mainly to chat, but not for professional reasons.

There is no connection between them, only the first and fourth users are related. I am the only common relationship that they have. This feature informs the 'expanded ethnography' and departs from other online ethnographic approaches.

Observation and participant observation

An initial observation during an extended period of time offered knowledge about the interactions that take place in public spaces on the internet. In this phase, I surfed on different SNSs – Facebook, Twitter, MySpace, Hi5 and others – I read blogs, shared posts with Google Reader, etc. I also used IM systems, real time video systems, and email to be in contact with people. It is important to point out that I perform some of these actions daily and for extended periods also outside my research, in order words: I am an insider (Adler and Adler, 1987) and technologized researcher with deep engagement with the research field. Yet, the performance of these actions as a researcher implies constant caution and self-reflection as part of the ethnographic research process (Jones, 2005). This phase generated field notes – notes, methodological reflections and questions for the interviews.

After this initial phase a participant observation took place during which I followed each user during five weeks. All of them were informed and gave me consent. After a first online contact I conducted a face-to-face interview and later made contact online with the participants in all the applications, sites and services that they use; becoming friend, contact and reader of their posts. Moreover, I interacted with them through email and IM during the data-gathering period. My private interactions (emails and chat conversations) with them were not registered due to ethical issues; however, they generated field notes.

Then, during five weeks, I registered public data directly copying them from the web-mediated communications of participants' interventions, and I captured screenshots and saved links in order to keep record of the photos, videos and other kinds of multimedia interactions used by participants, as well as full details of the user's profiles and their changes. They were informed again on the first day when I began to register their posts. To secure confidentiality, I do not publish the posts even if they can be found openly in the internet (e.g. the posts from open profiles in Twitter that could be found with Google).

At this stage it is important to emphasize that the context in which the data were produced also adds to the dataset and helped me to prepare the second interview and to later analyse the data.

Interviews

Semi-structured interviews were conducted both face-to-face and online, taking into account their advantages and limitations (Mann and Stewart, 2000). The interviews enabled an exploration of the private ICs not accessible in participant observation and a scrutiny of individuals' full involvement in SICT on the internet. Both sets of interviews were recorded in audio and the second set in video as well. The data obtained were in form of transcripts of the interviews.

The first interview with each user was face-to-face, and users were informed about the research aims and process and asked for informed consent. The aim of the first interview was to learn about the user's performance on the internet, the applications he/she uses

and to set the stage for later participant observation. It also offered a first contact allowing me to present the research, to acquire informed consent, to obtain addresses and nicknames, and to familiarize with participants. Hence the importance of doing this first interview face-to-face. The interview covers variables such as the modes of connection – from where they connect (home, work, studies centre, public spaces such a cyber-cafe), which devices they use (desktop computer, laptop, mobile phone, etc.) and the schedule and frequency of connections. Second, participants were asked about the kinds of relationships they maintain on the internet – work or study mates, friends, family, acquaintance, people known face-to-face or unknown. Third, I collected data on the tasks users do through the internet.

A second set of interviews followed up the activity of the sample on the internet after participant observation. This time interviews took place online (Chen and Hinton, 1999; Kazmer and Xie, 2008). The aim was to explore the features of the relationships between the sample and their contacts. During the time between the first and the second interview I kept regular contact with participants in order to obtain confidence and familiarity with their activities and way of communicating. The second interviews were more open and customized to each participant than the first ones, eventually, and thus took the shape of ethnographic interviews (Spradley, 1979). This second set of interviews had the purpose of covering the non-public issues of interpersonal relationships.

Routine diaries

I used routine diaries to register IC online and the emotions associated with them. Routine diaries facilitate the exploration of differences in interactions and their motivations among users – for example, whether they have different meanings and whether and how SICT are used for emotional communication. Moreover, diaries were helpful to discover users' internet routines and to study the types of communication they maintain online. The aim was not to measure the amount of time spent on interpersonal relationships online. Rather, I wanted to explore how communication online acts in the context of wider communicative interactions in everyday life, thus bridging the virtual-real dichotomy that has been criticized before.

Participants were required to write routine diaries four days per week: three during weekdays and one during the weekend, to cover different usages throughout the week. The routine diaries cover: the applications used, the relationships, the connection place, the kind of communication and the emotions involved in each mediated communication.

The data generated in this ethnography is multimedia, in other words data formed by text, graphics, sounds, videos, etc. In fact, each user and each technique generate different data that have to be analysed under the same focus. Data were analysed with qualitative data analysis software (QDAS). Again, the fact that research produces different kinds of data such as multimedia data – not just field notes as traditional ethnography mainly does – informs the necessity of an 'expanded ethnography'.

To sum up, in order to capture the complexity of interpersonal relationships in the internet, different techniques were used each generating a particular set of data. This also cross-validates the study and triangulates results.

An expanded ethnography

As discussed above there are three main limitations related to virtual ethnographies. First, there are few ethnographic studies that deal with both offline and online issues, dealing with how online interactions affect and are affected by offline ones. Second, the fieldwork focus has tended to concentrate on changing internet applications or websites, instead of focusing on how users use strategically and in changing ways a whole array of SICTs. Third, research mainly analyses text instead of multimedia.

To overcome these issues I follow Marcus' (1995) multi-site ethnography, which I refer to as 'expanded ethnography' when applied to the understanding of the social life on the internet. It is expanded in the sense that the research strategy adopted is and necessarily has to be as complex as the object of study itself. It also recognizes the fact that groups and relationships on the internet have diverse and complicated organizational settings, and they do not always take place in the public space or at the same site. It is focused on internet users. In order to follow them, the setting is expanded to all the applications and SICT that each participant uses. The application of such an ethnography, as the section above has already indicated, will imply several strategies. They are discussed in more detail below, together with empirical data illustrating this methodology.

Multi-situated

The first strategy is to follow and observe the user on the internet in order to follow up on fast-moving processes with the necessary reflexivity. This implies signing up to the social network that users belong to, adding them to the IM systems, emailing, chatting, reading their posts, sharing their photos, etc.; in other words, performing and interacting on Web 2.0 with the users under scrutiny. But it also means paying attention to and locating the places from which the users connect. Hence, this approach needs an identified sample, both online and offline.

User 1[5] connected through a variety of devices: laptop, several desktops, smart mobile phone and ebook. He connects from work, home and also from other sites with his mobile phone. He is very active in all kind of applications (SNSs, IM, email, etc.) and he posts regularly in his two blogs.

User 2 mainly connects from her laptop from home but also from the university. She connects from her mobile phone from time to time, sometimes to bid in eBay, to use GPS or to use Skype when she is away from home. She also has a blog, but this was her student portfolio, so it has not been actualized since she finished her studies.

User 3 is very active in Facebook and Tuenti. The interesting issue with her is that she keeps two profiles in Facebook: one with her identity and the other one is a corporative profile. She mainly connects from work and she rarely connects from home. In the past she used mobile phones to connect to the internet but due to economic reasons she gave this up.

User 4 works and studies journalism, so again he is involved with media. He is very active in Twitter and Facebook, but the computer-mediated communication he uses most is email. He uses IM as well. He connects from different places: home, work (he has two different jobs) and from University. He connects from his mobile phone as well, mainly when he is commuting to or from the university on the train.

Users 5 and 6 represented the older members of the sample and it was more difficult to find them; one was selected because he was connected all day – he only disconnect during the night – through his mobile phone. But he also uses a laptop from home and from wireless public places, such as bars and cafeterias. He mainly participates in Twitter, although he has a photo blog where he post photos took from his mobile phone. He also uses email to keep friendship. His work does not require the use of the internet, so he mainly uses it to make and keep relationships. By contrast to younger people, he is not very active in other SNSs except Twitter.

The other older user was chosen because she only uses internet to socialize, mainly to chat. She connects exclusively from home and from her computer. She is connected every time she is at home. She said 'other people switch on the TV, I switch on my computer'. Her main activity on the internet is chatting with both people she knows and people she does not know. She uses chat rooms and IM.

In brief, this sample supports what wider quantitative data shows: internet connection is becoming ubiquitous, as the use of devices such as mobile phones has extended the use of the internet services. The possibilities to be in contact with people are growing day by day and imply changes in the way we make and keep relationships. Besides, participants tend to simultaneously use several sites or services. All of them stated that when connecting to the internet they open an email account, IM and SNS and keep them opened simultaneously.

Offline and online techniques

Through their everyday use, the users produce and reproduce a variety of temporal structures, which constantly shape and re-shape their ongoing uses. This leads to a combination of online and offline techniques (Bakardjieva, 2005; Baym, 2007, 2009; Orgad et al., 2008). The limitations of virtual ethnography – its incapacity to give full and rich detail of lived human experience in a combination of online and offline modes, and the lack of informant identifiers present in the online context – will be avoided through the combination of research-oriented participation online with face-to-face interviews and routine diaries using an identified sample offline. The routine diaries are also useful to gather data to make sense of the time reckoning of individual users and of links between their online and offline interactions.

For instance, User 6 narrates that she switches on the computer and connects just like other people switch on the TV. The computer is a device constantly connected at her home, 'I wake up and switch on the computer, open the messenger and the chat room, so I can hear when somebody calls me while I move around'. User 1 wakes up, switches on the computer to read email and newspaper, has a shower, breakfast, leaves home and connects again through his mobile phone while he waits for the train. He arrives at work and connects again. He said 'I am always connected or am just at one click of being connected'.

Another interesting issue considers making sense of the interaction time on the internet and putting it in relation to the communication time offline. Following from the discussion about the multi-situated nature of internet behaviour, User 1 related in an interview that a conversation can begin as consequence of one tweet, for example, follow

on in one-to-one conversation through an IM system, then pass to telephone and finish in a face-to-face conversation over a coffee. Other evidence of the need of offline and online techniques comes from the use that people give to SNS to arrange face-to-face meetings. It is quite common to plan the weekend, or events, with SNS. All the participants of this research at some point have arranged a meeting in online public spaces.

Flexible and multimedia techniques

The third strategy will be based on a flexible, but rigorous, use of techniques for generating rich data: diaries, interviews, multimedia data and a broad set of other tools and techniques (Williams, 2007). This set of rich data is more helpful to obtain evidence of the behaviour of users. For instance, User 2 is very shy and cautious about the information she exposes publicly online and this feature can be reassured through different techniques, all while securing full comprehension of her behaviour. In this example, photos published in her profile have been analysed and, as it could be expected, there are no images of her. By contrast, User 5 tends to publish a huge amount of photos directly taken and published with his smart phone. He is a highly communicative person and photos, texts and music that he posts can be analysed in a related manner. Differently, compared to User 2, he usually publishes where he is and what he is doing, and he does it with images as well (taking a picture of the place where he is, for example, or taking a picture of the book he is reading). He usually publishes music and explained in the interview that he does it in a communicative way. So he tries to transmit some meaning with the songs. Expressivity of images and sounds needs to be analysed under the same categories as written text (Pink, 2007).

Moreover, techniques need to be customized to the specific situation. For example, the researcher has to consider the specificities of an online interview or an offline one. That means treating both of them as valid techniques for data collection while remaining aware of their own features and limitations. Sometimes that also implies research method choices depending on who the participants are. In Hine's words, ethnography has to be an 'adaptative methodological approach' (2005: 18). Although all the second interviews where planned for being conducted online, they were carried out face-to-face with User 5. As she does not have internet connection at home it would potentially have created an uncomfortable situation for her to be interviewed in her work space as she would not have felt as open as usual. So I decided to conduct this interview face-to-face as well.

Regarding the findings, for example, I managed to collect a huge number of evidence from the data confirming that emotions (Thoits, 1989) happen online: they are experienced, expressed and managed. For example, people experience sadness (an emotion label) when receiving bad news through the internet (situational cue), which leads to a sorrow feeling and even an increase in heart rates (physiological changes) and, in turn, is transformed into multimedia expressing that sadness towards the other (expressive gestures). Nevertheless, it seems that public spaces (Facebook, Tuenti, Twitter, blogs, etc.) are perceived as appropriate for relaxed emotions (such as like, dislike, joy, surprise, empathy, disappointment, etc.), meanwhile hard and intense emotions (as love, anger, hate, etc.) are rather performed in private sites and in one-to-one communications or, even better, face-to-face.

To sum up, the researcher and fieldwork has to be as multi-situated as their sample, can flexibly choose which technique and strategy is more suitable in each situation, giving clear details of his/her choices. Furthermore, he/she has to be able to manage different kinds of data – textual and audiovisual. Methodology has to be understood as a process that allows going into detail even in complex settings. This will eventually offer a better understanding of social interactions in the internet.

Epistemic questions of researching online interpersonal communication

Several additional epistemic questions underpin these three strategies.

The researcher's role as observer and participant at the same time is essential in an expanded ethnography. Hine (2000) insists on the value of participating in ethnography for two reasons: the opportunity to check interpretations and to learn by trying to participate. Achieving familiarity in the setting is a key factor (Hammersley and Atkinson, 1995); the researcher must be close enough to the subject/object of study to understand how it works. In the expanded approach participation is a core strategy because it allows us to place the study at the micro-level of interactions. Hence I advocate 'a participant as an observer' role (Van Maanen, 1988) and an insider position (Adler and Adler, 1987).

Moreover, how can a researcher 'just' observe in a setting that is based on interaction? I recognize the difficulty, if not impossibility, of achieving a proper understanding without a social immersion and an interaction with the internet users. According to Lyman and Wakeford (1999), investigating reality on and with the internet, involves not only inquiring into 'the objects that are produced, but also the people and stories'. Therefore, a piece of research about the internet that does not listen to people and make use of interaction with them would not make sense. At the same time this interaction has to be carried out cautiously in order not to mix up the researcher role with personal interaction and to remain analytical without imposing interpretations on the users the researcher interacts with.

Another advantage of the methodology proposed here can be seen in the various traces that users leave on the internet: those can be analysed and integrated into the ethnographic approach. However, this requires careful techniques and triangulation with other data sources because ethnography cannot be limited to a textual content analysis, which would lead to a textual bias (Soukup, 2000). Both the opportunity of situation and participation at the micro-level of interactions, and the observer position following public traces of online activity, provide empirical reason for applying the expanded ethnography.

Limits of the expanded ethnography

The limits of ethnography must be recognized as well: Hakken (1999: 63) rightly refers to 'its ultimate dependence upon flawed data-gathering instruments', in other words: data are generated by humans who can make mistakes. Second, ethnography inevitably produces partial analytic results depending on the focus of research, so it is impossible to give a full description of social phenomena under scrutiny. Both issues lead to

impossibility to generalize and thus divorce the methodology from epistemological determinism. A preliminary analysis of the instance of research through quantitative data qualifying salience and features of the phenomenon of online communication could enable a more accurate interpretation. Nevertheless, it should be noted that ethnography is an interpretive process and its goal is to make meaning of culture. In order to achieve this it is necessary to be reflexive about the interpretations, limitations and potential research biases in the process of data collection, analyses, interpretation and theorization (boyd, 2008).

We also have to be aware of specific problems expanded ethnography implies: first, its incapability of social network analysis at focusing on users. The research presented fails if we want to inquire into relationships in terms of nodes and ties. In centreing on one specific user, instead of one group, it is impossible to analyse all the groups and social networks he/she belongs to or the dynamics in these. Moreover, some people in the sample have their profile restricted so that I cannot access their responses to participants. To minimize this effect I prepared a list with all the users my participants interacted with during the observation-participation phase and I asked them to classify these people (as friends, acquaintances, family or unknown) during the second interview, although they can relate to other people privately as well.

Second, we have to acknowledge its weak power of generalization in using such a small sample, and its weakness when trying to describe a group in cultural terms. However, this last issue can be avoided by selecting a more concrete sample (e.g. same group age, or teleworkers, etc.). In this project, with an exploratory aim, I have given priority to achieve a broad understanding of tendencies.

Third, limitations also concern the risk of altering the behaviour of the users/participants by participating in interaction.

Another important problem relates to the huge amount of data produced. Expanded ethnography can moreover be associated with high costs, as it is very time-intensive. In order to minimize costs, the individuals' sample will have to be rather small to remain manageable. It also appears convenient to adopt a theoretical sample, relying on previous quantitative data collection. This allows the exploration of different concepts and meanings and different interaction situations in an iterative process before conducting research of the main sample. On the contrary, an advantage of a small sample can be seen in the fact that a year after conducting this research I still keep in contact and interact with the participants, so results can be checked and widened.

Ethical issues of ethnography going online

Since ethnographic research involves observing and interacting with people, we have to be aware of a number of ethical concerns. Ethical issues are indeed crucial given this research's focus on internet users. However, ethical guidelines have not yet been fully developed for research of online social interaction although some emerging literature begins to provide some useful insights (Estalella and Ardévol, 2007; Mann Stewart, 2000; Ploug, 2009).

Ethical action is not limited to the direct interaction between the researcher and participants, but it also concerns the kind of data produced and the recording techniques

used. Ethical treatment has to be accompanied by a discussion of the private and the public in the internet, which is a problematic and not clear-cut issue (Elgesem, 2002; Ess and the AoIR ethics working group, 2002; King, 1996, Sharf, 1999).

For example, questions about obtaining informed consent for online-based observations, participant privacy and confidentiality are often raised (Brownlow and O'Dell, 2002). Given the openness of many social networks, online participant observation theoretically allows a covert position (Mann and Stewart, 2000; Sharf, 1997). I consider this problematic due to serious ethical concerns associated with the potentially unnoticed invasion of users' privacy. Besides, people using public sites do not expect researchers to be gathering their commentaries and their exchanges of personal information as data. Lastly, another critical issue is the confidential and anonymized treatment of multimedia data given that users post audiovisual resources (such as photos) that reveal their identities.

Seemingly, the novel opportunity that the expanded ethnography offers also embodies a number of new challenges with respect to ethics. We have to bear in mind that a user-centred approach needs a very sensitive strategy to address the ethical questions above. I dealt with ethical issues in my own research in the following ways: first, although internet media allows a covert position and a 'non-consent' research process, all participants have been informed about the goals of my research; second, I requested informed consent from participants beforehand, and I assured confidentiality and privacy, and anonymization where necessary to safeguard their identities; third, I informed participants about the results of the study; last, although online interventions in blogs, Facebook, Twitter, etc. are considered public, I did not include any published information in data collection unless I had acquired informed consent for using it. Neither did I use data from private communications with participants unless they came from an interview for which consent had been obtained.

Despite all of this care taken to address ethical issues, it is essential to recognize that not all the subjects that are observed could be informed. There are many individuals that, while interacting with the participants of the sample, are co-observed. Yet, as their activity is not the focus of the analysis but rather some by-product of observing the sample, ethical concerns are relatively small in that respect.

Regarding the confidential treatment of multimedia data, all the screen captures obtained from the internet (Facebook, Twitter, etc.) are anonymized with a graphics editing program. Even where the avatars are not the image of the users, they are distorted so that they cannot be matched to an identity. All names, nicknames, avatars, URLs, social networks, specific posts and other information that could facilitate the recognition of users are deleted.

To sum up, an expanded ethnography is multi-situated, user centred, flexible and multimedia. It requires highlighting again that the strength of expanded ethnography lies in its capacity to analyse in-depth complex social interactions, avoiding the artificial division of linked social phenomena and problems for their analysis. Meanwhile, it needs to be considered that such a user-centred approach requires a clear ethic guideline. In short, it has been proposed that a clear set of guidelines providing an uncovered researcher position, assuring privacy and confidentiality to the participants of the sample and a careful treatment of the data gathered (private or public and multimedia) should be followed in online ethnography.

Conclusions

Ethnography online has some limitations and critical issues that need to be revisited in order to develop an approach for more meaningful research. I proposed an expanded ethnography as an appropriate methodology for online social interaction research: it is expanded because the research strategy implies following the users and spreading out the research field to all the SICT participants employ in their interpersonal communications every day. It also needs to pay attention to the relationship between online and offline IC and analyse multimedia data.

It seems essential to study everyday life on the internet as a crucial part of communication processes today. The internet and its repercussion in society – in people's everyday lives – is a complex issue that cannot be understood and explained with any single indicator. It is a media with great consequences for social life; and recent research about the internet and CMC systems reflects a variety of disciplinary paradigms and approaches. A lot of this research still focuses on a very partial aspect of the issue, as to study a specific application, not paying justice to its complexity. Hence, in this article, I have advocated a more holistic approach. I called for a methodological change towards an expanded ethnography that allows in-depth studies of online and offline social interaction and that pays more attention to the micro-level of social interaction. I have moreover exemplified its adequacy and applicability by showcasing the use of an expanded ethnography in my current research on Spanish internet users.

The first aspect to take into account has been the need to overcome the postulates of virtual ethnography. The methodology proposal does not treat 'cybercultura' and 'cyberspace' as cultural contexts of their own. Instead, the internet has to be seen as a field of enquiry within – not beyond – the social realm and as yet another place where culture and society are being shaped. This implies a careful reflection about the research field and its accessibility.

Consequently these reflections have led to an expanded ethnography as a methodology that opens possibilities for a more in-depth and multi-faceted data generation process. A single and pre-determined strategy does not provide sufficiently rich data and I call for a close study of the context and situation within which the object of analysis – the user – is situated, before making methodological choices. The approach suggested here has to be understood as a methodology in process, in other words, the methodology has to be designed, re-designed and derived as the research process unfolds, informing the data iteratively and generating a constant reflection on the research process. Following users in an expanded ethnographic approach requires flexibility.

The main features of this expanded ethnography are, first, the possibility of using quantitative data in order to establish and describe the research field and the context in which objects of analysis perform. It has been argued that the real-virtual division is no longer sustainable as people use all the media at hand to communicate with others. That means that the research field is both online and offline and links between online and offline modes of interaction have to be taken into account. Second, as ethnography does not generate a pre-determined setting for fieldwork it is considered 'expanded'. It is individuals who compose the sample and determine the place where the ethnography takes place, thus the setting is flexible and potentially concerns all social communication

and information systems on the internet, including a variety of multimedia data. Third, as a result of the fluid and dynamic field, the expanded ethnography approach requires a theoretical sample.

To sum up, it has been suggested that an expanded ethnography approach is able to provide tools for capturing the complexity of social interaction online, scrutinizing phenomena in-depth and rich in details. As illustrations from a study of Spanish users and their communication and emotions online have indicated, this methodology gives us a better understanding of how interpersonal relationships online take place and it is able to produce insightful findings. It is now the task of future research to use and fine-tune the tools proposed here, to show their limits and to overcome them in order to hold pace with a fast-moving target of analysis.

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Notes

1. There are two main approaches: those positing that a true and complex relationship cannot take place on the internet given the reduced social cues of the environment and those who argue that it allows a kind of liberation of all social constraints.
2. http://blog.facebook.com/blog.php?post=190423927130
3. http://www.insidefacebook.com/2008/07/29/tracking-facebooks-2008-international-growth-by-country/
4. In Spanish 'yo tengo una vida virtual. Me paso el día delante de una pantalla y manejando un teclado. Incluso con mis amigos me hablo mediante correo electrónico. Somos muchos los que vivimos en una burbuja de este tipo'.
5. Although in qualitative research it is common to use pseudonyms instead of the real name, I have not used them because it could generate some kind of confusion with nicknames. Besides, to name participant as user 1, 2, and so on, helps me to avoid transmitting an identity impression.

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