

# Mediating Ethnography: Objectivity and the Making of Ethnographies of the Internet

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*This paper aims to contribute to current discussions about methods in anthropological (especially ethnographic) research on the cultures of the internet. It does so by considering how technology has been presented in turn as an epistemological boon and bane in methodological discourse around virtual or online ethnography, and cyberanthropology. It maps these discussions with regards to intellectual traditions and ambitions of ethnographic research and social science, and considers how these views of technology relate to modernist discourse about the value of technology for producing a particular kind of objective knowledge. For this article, I have examined a number of monographs and methodological texts in which the internet, as both a new setting and a new technology for doing ethnography, is shown to raise new issues for ethnographic work and for theorising anthropological approaches. In this material, questions of presence, field relations (including trust and confidentiality), and new possibilities for observation are especially prominently discussed. Anxieties about whether the internet can be a field at all are also expressed. In my analysis, I place these issues and dilemmas facing the researcher in the context of the intellectual tradition of ethnography as applied to technology. The main themes found to subtend these discussions of ethnography's 'way of knowing' are the notion of 'field', technology, intersubjectivity and capture. The paper ends with a reflec-*

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*tion on the kind of knowledge about the internet that ethnography can be expected to produce, given these methodological prescriptions.*

*Keywords: Reflexivity in social science; Theory and ethnography; Anthropological writing; Media ethnography; Virtual ethnography; Internet*

## **Introduction**

In the discussion that follows, the notion of objectivity as knowledge about an external world, as it really is, and independently of the research, is not one that has much purchase in ethnographic circles. This does not mean, however, that the question of objectivity is moot in this field. It seems important to introduce, in the discussion of objectivity, not only those areas of science that have made the hardest realist claims to objectivity (opposing irremediably subjectivity and objectivity), but also those epistemic cultures (Knorr-Cetina 1999) that have a different stance to the creation of their objects.

Fabian, one of few theorists to have reflected on ethnographic practices using this vocabulary, sees objectivity as a quality of the production of knowledge:

...A view of ethnographic knowledge as based on what is intersubjectively and communicatively produced, hence made, had to include a theory of objectification capable of specifying what in communicative interaction becomes an object and thereby the basis of objective knowledge. (Fabian 1994, 85)

In seeking to understand objectivity through an examination of the strategies of objectification, the relation between objectivity and objectification is problematised. While objectivity seems to evoke the making of claims and objectification the practices of science, this distinction flip-flops when examined more closely. An objective claim relies on knowledge of objects, and the knowledge of objects is shaped by the kinds of claims one hopes to make. Indeed, the constitution of objectivity has been shown as a position occupied relative to a chain of events (Latour 1987), and as a process of constitution of objects that needs to be interrogated (Hacking 1993; Galison 1997). The notion itself is also amenable to a historicising gaze, which shows objectivity as a changing concept that informs the constitution of knowledge, often in relation to specific technologies (Daston 1992; Daston and Galison 1992; Shapin 1995; Beaulieu 2001; Dehue 2001, 2002). Taking ethnographies of the internet as my point of departure, I aim to trace here the relation between the way the objects of these ethnographies are made, and the kinds of knowledge that are produced.

There are a number of models to think about these relations. The Foucauldian approach to power/knowledge has been a fruitful one in studies of knowledge production (Rouse 1987; Terry and Urla 1995). The slash represents the 'trick' here, the erasure of the two-way street between making of claims (constitution of knowledge), and the exercise of power based on these claims. Archaeologies of knowledge aim to uncover, document and name the relations that tie knowledge of objects and objective claims. In contrast, Haraway proposes to make the relation visible on an ongoing basis, in the course of production of 'situated knowledge' (Haraway 1991). The epistemic advantage of a particular practice is then self-consciously named and

framed in the process of making knowledge. The materials considered in this paper contain elements of these two understandings of knowledge production. By tracing various strategies of objectification used, and relating them to the values they enact, assumptions are made visible, and the production of ethnographic knowledge is considered in terms of the context that sustains these particular ways of generating knowledge about the internet.

While much critical and reflexive work in ethnography has focused on the practices of representation of ethnographic writing (Clifford and Marcus 1987; Clifford 1988; Van Maanen 1995), this paper is closer to another trend which has interrogated the object of ethnography and the practices of ethnographic work, albeit with varying motivations (Hammersley 1992; Adams 1996; Hodgson 1999; Fox 2000). I aim to contribute to this discussion by considering what has been a contested terrain for ethnography: the pursuit of ethnography on or of the internet. The body of texts in this discussion is interesting for a number of reasons. First, as is commonly acknowledged in analyses of controversies in science and technology studies, these situations tend to foster explicit justifications of practices found to contrast with the status quo. Those texts that do not take part in any kind of debate are also valuable for this analysis, since the discourses about the creation of knowledge are also part of the scientific activity they seek to describe (Stengers 1997). These texts are stories researchers tell each other about their work within and beyond their fields; they constitute an important part of what researchers tell their students to read, and are therefore part of how objects and claims are received and perceived. These texts thus speak of the claims they hope to make:

For scientists, it is actually a matter of constituting phenomena as actors in the discussion, that is, not only of letting them speak, but of letting them speak in a way that all other scientists recognise as reliable. (Stengers 1997, 85)

I try to frame my own knowledge making practices in a reflexive way, signalling how I have made this object and let it speak, while considering how ethnography of the internet has been making its own claims to knowledge, and interrogating how certain emphases have developed.

### **Ethnography...Mediated**

I have hinted above and in the title at a particular kind of ethnography which may be developing. For those studying practices of scientific knowledge production, recent developments in the use of novel information and communication technologies have meant that new practices like data-sharing, the use of mailing lists and webpages or 'open publication' practices have created new sites where science can be studied. For technology studies, these changes mean the increased presence of technologies that are networked, perhaps more so than in the past, like distributed databases, laboratories, and grid applications. Indeed, it is telling that the other field sciences on which anthropology modelled itself at the start of the twentieth century (botany, zoology, geology) (Gupta and Ferguson 1997) are also revising their focus, beyond what typified them as engaged in the 'detailed study of limited areas' (Kuklick 1997). They too are

constituting their object with novel mediations of databases, GIS and computer models (Bowker 2000; Van House 2001; Casey 2003). Potentially, this may lead to a number of new questions and problems for 'lab studies' (Beaulieu 2004). One of the motivations for this paper is therefore the need felt by myself and colleagues in STS to explore aspects of knowledge production that might be adapted to and shape these new contexts.

Besides the concerns of science and technology studies to investigate new forms of and tools for knowledge production, parallel discussions are also pursued in anthropology. New sites and objects of study are being proposed (networks, multi-sited ethnography, multi-media) for the study of traditional anthropological issues like migration, community and identity, and of novel ones, like globalisation. The main question of this paper may therefore be of interest to these other streams of research which have ethnography as their main method.

In order to focus this discussion, I will make into my object those ethnographies that deal with 'the internet' as topic or context of study. The guiding question will therefore be

How is ethnography being challenged and reinvented in its encounter with these new objects, and with the internet in particular?

What constitutes the internet remains largely untheorised but not unproblematised here. Rather than reifying what the scope of studying the internet might mean, I have chosen a more ethnographic stance, and followed the actors' lead. I have included texts that identify their object using the label of 'the internet'. This analysis further adopts the stance proposed by Karin Knorr, to reflect on what happens in a lab (Knorr-Cetina 1999). By asking what is the epistemic advantage of ethnography, and how does this change when ethnography is pursued, say in a virtual setting, the way ethnography can be used to produce knowledge can be characterised.

This article considers technology as epistemological boon and bane in methodological discourse around what has variously been called virtual or online ethnography, and cyberanthropology. I begin to map various writings about ethnographic methods, and to relate them to discussions of the intellectual traditions and ambitions of ethnographic research and social science. This map is preliminary and not exhaustive. I hope to further develop this analysis and consider how these views of technology relate to modernist discourse about the value of technology for producing a particular kind of objective knowledge. I also think that this reflection on methods and aspirations of ethnography can be enlightening as to the hopes that are pinned on this body of knowledge, and as to what it may be able to tell us about the internet.

### **Challenges of Ethnography of/on the Internet**

There have been a number of discussions about the appropriateness of ethnography<sup>1</sup> for the study of the internet, and in turn, about the appropriateness of the internet as a field of study for anthropologists. Many reflections have focused on whether the units of analysis of anthropology can be found on the internet. Some anthropologists have

also wondered whether the basic theoretical frameworks of anthropology are not themselves in crisis, for example, notions of society, the self, and nature/culture distinctions (Escobar 1994; Fischer 1999).

Technology has also been claimed to form a barrier to ethnographic approaches, or to lead to a crisis for the ethnographic project. For example, the notion of community, an all-important unit for anthropological understanding, has been claimed to be actually illusory when enacted on the internet, as para-social rather than real phenomena (Calhoun 1991).<sup>2</sup> There is indeed a largish body of work that shows how 'computer-mediated communication' is actually not rich enough as a mode of interaction to sustain meaningful social relations. This body of work is often taken as a starting point by ethnographers wanting to show that 'cyberspace' is, on the contrary, the site of uniquely meaningful sociality. Other common objections to the possibility of an online ethnography are the lack of face to face interaction and the lack of a notion of place in which to ground fieldwork.

Others have argued that ethnographic methods are actually quite well suited to study internet sociality, given the recent theoretical debates in anthropology about multiple identities and dynamism of communities (Hakken 1999). Furthermore, some have noted that internet studies would do well to pay attention to these debates rather than, for example, over-invest in fetishised notions of community that are no longer considered valid in anthropology (Amit 2000; Wilson and Peterson 2002).

In what follows, I examine these different scenarios to try to understand where these hopeful or despairing accounts are coming from, and attempt to tie them to epistemological aspirations and consequences. The entire discussion of whether the internet is a suitable place for ethnography is rather too broad to be addressed in a single paper, and I am not sure it would be a very fruitful one either. (Those who disagree will likely not be convinced anyway, and those who wish to engage in such ethnographic work will not gain much from reading a discussion at such a general level.) So, taking as an *a priori* the possibility of ethnography of and on the internet,<sup>3</sup> I specifically consider a number of ethnographies for the ways in which 'objects' are made, and the role explicitly and implicitly attributed to technologies in their constitution.

## **New Demands**

At a general conceptual level, there is no clear consensus of what changes, when ethnography is pursued on the internet. As Karin Knorr suggests, one of the best ways of understanding forms of knowledge is to read them against each other, as templates. Reading these texts in relation to the tradition of ethnographic studies is quite interesting. This makes the ordinary seem strange, and the strange seem ordinary. I begin by noting a few examples of what are described as changing demands, at what I would call the level of the craft of doing ethnography in this setting.

These texts contain many comments about how researchers struggle to keep up with the technology (often as apologetic asides). These comments arose both in terms of having to 'learn' it, to understand and make sense of it (i.e., to gather the data we wanted, we had to learn to program, and the software used by our community was

about to change (Ruhleder 2000), and in terms of the changing object itself (i.e., by the time an ethnography of a technology is done, it may no longer be a key one):

The disparate approaches to new media and Internet studies also reflect the ephemeral nature of the new media, the often elusive and ambiguous constructions of individual and collective identities mediated by these technologies, and the problem of gaining an ontological footing within rapidly obsolescing technologies. (Wilson and Peterson 2002, 451)

Hine notes that ethnographers of the internet may see as an advantage the fact that they no longer have to struggle 'to get away' and can pursue their fieldwork from their offices (Hine 2000). Pink explains that 'in the electronic context', fieldwork is characterised by 'switching' roles, due to the 'intermingling of fieldwork amongst other emails in [her] in- and out- box' (Pink 1999, 114). So, while several comment in these texts that fieldwork may seem easier because closer to home, RSI and other forms of exhaustion were also experienced (Star 1999; Howard 2002; Wilson and Peterson 2002).<sup>4</sup> Other ethnographers also stressed the high cost of multi-sited ethnography (Howard 2002), and the chronic uncertainty that accompanies having a moving 'field' and changing actors (Newman 1998).

New ethical dilemmas have also been signalled, largely framed in terms of the loss of distance and anonymity, caused by the purported accessibility of the internet and efficiency of search engines. Where names and textual fragments seem easier to retrieve, the traditional safeguards of ethnographic ethics are challenged (Bromseth 2002). Clearly, ethnographers feel they are doing something different when working in a highly mediated context. I now turn more specifically to the production of objects of ethnographies.

### **Selection of Material**

For this paper, I looked at all the monographs I could find that both identified their object as the internet or phenomena placed on the internet by the authors, and that also identified their methods as ethnography. The various ethnographies I consider all deal, topically, with the 'internet', broadly defined. This means that I have chosen work that looks not only at cultures on the internet, in cyberspace, but also ethnographies that have dealt with the internet as a technology that needs to be produced. To me, both aspects are important, since they address 'the cultural constructions and reconstructions on which the new technologies are based and which they in turn help to shape' (Escobar 1994, 211).

The texts discussed here are by no means the totality of the relevant literature, but rather indicative of the range of works I encountered. I also looked at a number of methodological articles that addressed virtual ethnography, cyberethnography, web studies, etc., from a more conceptual standpoint. By and large, the texts considered here do not fall under the slightly different rubric of 'anthropology and computing'. In this stream of work, to give an example, structuralist anthropologists have used kinship diagrams to both codify their findings, build databases, elicit further data from their

informants, or to compare different ‘cases’.<sup>5</sup> Computers here are used for ‘computation’ on data from the field, rather than being considered constitutive of the context and relations involved in ethnographic research.

In reading these texts, I tried to figure out how the object of the ethnography was being made, and what ethnographies claimed to have found out about them. This was sometimes made explicit, for example in methodological articles, or methodological chapters of book-length accounts, and sometimes implicit. Of course, these texts are not considered here as transparent accounts or unproblematic representations of the fieldwork. Indeed, it is probably inevitable to acknowledge that the novelty of these objects is strongly performed by these texts themselves, especially because a fair number of the texts considered fall under the rubric ‘methodological article’. These types of publications not only help to increase one’s productivity (as measured in output) but may also be especially important for ethnographers working on topics that are on the boundaries of disciplines (this may of course also hold for this article). Having one’s name under a methodological publication is a way to claim legitimacy in the face of one’s colleagues’ or potential employers’ questions. It furthermore signals a professional audience for this work, and a reflexive stance to one’s practice. Nevertheless, these texts are part of the production of ethnographic knowledge, and are useful sites to investigate ambitions of ethnography.

I have now formulated a set of questions to guide my analysis of these ethnographic projects. They more or less co-evolved with the reading of the texts.

*How does the ethnographer studying phenomena in an internet setting claim a special epistemic position? (Or in an alternate formulation which does not emphasise the subjectivity/personae of the ethnographer to such an extent, how does ethnography of phenomena in an internet setting claim a special epistemic advantage?)*

*Is technology assigned any role in constituting this position? Is such a role pre-determined by the setting, to some extent?*

*Might certain kinds of mediation play a particular role in ethnographic object making?*

This paper also or perhaps more correctly, primarily, grew out of my attempts to learn about how ethnography is being used and adapted to study the kinds of contexts and practices on which my work focuses, namely the use of information and communication technologies in scientific and scholarly research. I am also interested in the way the various ‘traces’ that are left by users and uses of the technologies can be integrated into an ethnographic approach. These traces have been interpreted and constituted in various ways, and furthermore, these traces are made to feedback and spur on meaningful social activity—a loop which intrigues me. Amazon builds me a webpage and a list of recommendations using the traces left by my surfing behaviour. Developers of websites value numbers of hits or of links to their sites as indications of their visibility (Hine 2000). Social scientists have also paid some attention to these, like social network analysis (SNA), which has taken hyperlinks to mark the presence of social relations between websites or between their developers. The ethnographic works discussed in this paper may, therefore, have been selected with a bias towards approaches that pay attention to technologies and traces.

The ethnographic writings I chose to consider also have a strong methodological component, though the degree of reflexivity in approaching methodological discussions varies greatly between these authors. I have also tried to pay attention to the field in which the authors work, since these make particular epistemological demands which inevitably shape writings—if only because these are published pieces (as articles or as books) or theses. They are ordered below according to their ‘strategies of objectification’.<sup>6</sup>

### Strategies of Objectification and Underlying Themes

In what follows, the strategies of objectification used by researchers are grouped under a number of themes: ‘field’, technology, intersubjectivity and capture. The importance of the idea of ‘field’ undergirds strategies that focus on travel to a specific locale, and on spatiality for the epistemic advantages of ethnography. I do not discuss this theme in detail here because its historical roots, intellectual implications and contemporary adaptations have been addressed elsewhere (Gupta and Ferguson 1997; Lyman and Wakeford 1999; Amit 2000; Hine 2000; Beaulieu 2004). I focus instead on the others, beginning with the investments made in the powers of technology.

#### *Technology: Totalising the Field*

In studying the Internet, technology is invested with the ability of achieving something like mechanical objectivity (Daston and Galison 1992), where technology makes it possible for the subject to be removed from the observing context, or at least from some aspects of ethnographic work. Indeed, the idea of the lurker<sup>7</sup> as beneficial or even ideal position for the ethnographer comes up frequently. The ideal of the unobtrusive observer has been heralded in relation to various internet contexts (MOOs, news-groups). In stronger or weaker version, the position of the lurker has been celebrated for (finally) enabling the gathering of material at the ethnographic level (at the level of specific interactions) without the intrusiveness of the tape recorder or the disturbing physical presence of the observer:

The Internet does greatly facilitate ‘casing the scene’ prior to creating a strategy for entering into active participation. It is much easier to lurk on the Internet in most cases than to unobtrusively hang out in an Amazon village. (Thomsen, Straubhaar et al. 1998, online)

The technologically mediated setting is one in which ethnographers can be, without revealing themselves as individuals.

Paccagnella argues that in doing research on the internet, ethnographers can benefit from greater availability and accessibility of unobtrusive techniques:

It is well known, how, in social sciences as well as in other fields, the phenomena being studied are modified by the very act of observing them. (Paccagnella 1997, online)

Again, the technological mediation serves as protective barrier between the object and the researcher as subject. Lurking is also presented as protecting the ethnographer from

being too awkward and bumbling, and as a (normative) first step in becoming a full-fledged participant (Baym 2000).

The internet as a setting offers 'peculiar advantages', namely

In many cases observations can be carried out even without informing the people being studied. While this obviously urges us to take into consideration new ethical issues...at the same time it reduces the dangers of distorting data and behaviours by the presence of the researcher. (Paccagnella 1997, online)

Paccagnella writes from a sociological perspective, where social scientific tendencies to the positivistic may be stronger than in anthropological circles. Another, perhaps more ethnographically inspired, line of argument for the value of the invisible non-participant observer focuses on the fact that 'the lurker' is a socially acceptable position in the setting:

...an alternative ethical measure would be one in which we concentrate on methods that seem in tune with the world in which we exist rather than seeking to satisfy a set of abstract and possibly theoretically inapplicable ethical codes. Non participation observation is a common occurrence in chat rooms (hence the typical cry, 'why isn't anyone talking?'). It fits the local environment better than interviewing or any other method. Perhaps if we adopt local measures of valid action it is the most justified method. (Leaning 1998, online)

Schaap, who studied a MUD intensively for 2 years, also notes that much of his material was collected by lurking (Schaap 2002). Like Leaning, he also argues that the behaviour is a common one in the MUD environment, and that it provides the ethnographer with the possibility of unobtrusively observing. While I have no reason to doubt that the behaviour is found in the field, the subject position of the ethnographer probably does not quite map on to that of a player—what of the differences in the intentions, motivations, and consequences of lurking? This tension is well illustrated by the experience of researchers who have tried to come out as ethnographers, having lurked for most of their research. Some have found that the setting may not be so accepting of this position (see Bromseth 2002); the instrumental stance and consequences of ethnographic lurking are problematic to participants, in a way that other forms of 'lurking' may not be.

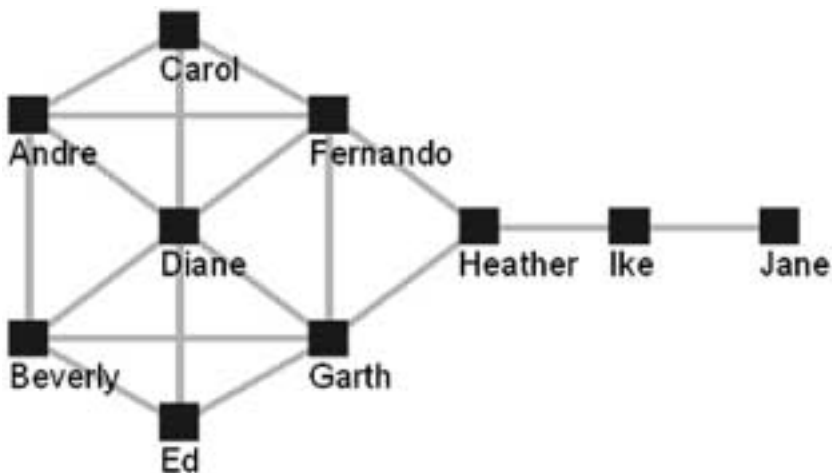
Claims about the possibility of an ideal observer insist on the desirability of placing the ethnographer at one end of the participant observer continuum (Leaning 1998; Paolillo, 1999), to whom all is accessible, without needing to enact a subject position. The relation proposed by mechanical objectivity, may be fragile, however, when the object talks back to an identified subject.

Avoiding interaction may also have consequences for the material gathered by the ethnographer. Several ethnographers (Mason 1996; Leaning 1998; Heath et al. 1999; Hine 2000) note that the ethnographer may miss out on part of the phenomena, which may not be visible on the 'observable', 'public' list or on the webpage. Mason illustrates this point with the example that when posting messages to a list, one discovers that off-list responses are also sent out (Mason 1996). Hine insists on the value of participating for checking interpretations, and on the intrinsic usefulness of learning by trying to participate (Hine 2000). These arguments emphasise the value of interaction as part of the ethnographic approach.

*Non-subjectivity through Disciplining of the Ethnographer*

Another kind of objectification that relies on attributes of technology as unvarying involves disciplining the ethnographer. Here, mechanical objectivity directs movements and interactions with the field, bringing ‘order’ to what is seen by some researchers as the ad hoc nature of field relations. Howard has conducted a study of an emerging e-politics/e-democracy community (Howard 2002), and proposes ‘network ethnography’ as a method for the study of what he terms hypermedia organisations. These are social groups that have formed around and via new communication technologies as ways to conduct business or arrange socially, and thereby may be disparate in terms of geography and time. Howard argues that because ethnographic methods were developed to study co-located communities, they need to be adapted to study these new organisational configurations. Howard does this by representing the community as a network, which is generated using social network analysis (SNA) techniques. This enables the analyst to generate a network view of the field, and to attribute various positions to actors in the network. Certain features can also be attributed to actors, for example, how central or marginal they might be to the network (Figure 1).

Howard produced such a network view of the field, by considering registration and participation of various actors to panels at conferences. He then used this network as constituting his ‘field’ and then proceeded to do interviews with and ‘site’ visits to individuals identified from the network view. The advantages claimed for this practice are that the sampling of the members of the community is not subjective (being due to the ethnographer’s contacts). Howard also emphasises that this sampling is further unconstrained by boundaries such as those of organisations, which may be less relevant in hypermedia organisations. The ethnographer identifies the behaviours that are likely to



**Figure 1** This is an iconic figure in social network analysis, probably of American origin. Retrieved here from [www.orgnet.com/sna.html](http://www.orgnet.com/sna.html), where more can be learned about SNA. Note how the object is easy to illustrate, to exemplify and to transpose (also for my purposes).

modulate relations, but SNA and accompanying techniques determine the distribution within the network. The object of study is produced here by abstracting certain behaviours or functions of individuals, and representing these as determinant of the field. Elements of interaction with actors are shaped by the identification of sites of fieldwork through the use of automated procedures.

In the various strategies related to the theme of technology, machines and applications are treated as black boxes, as unvarying, reliable, instruments that can be useful in articulating the object/subject distinction, by disciplining the self, or even removing it entirely. In encountering the internet as object, the ethnographer can be placed at one extreme of the participant/observer continuum—technology makes this possible. This theme is also visible in the argument that on the internet, the field precedes and pre-exists the arrival of the ethnographer. Here, technology promises that ethnography will be conducted scientifically, without intrusion and interference. If many aspects of traditional ethnography are adapted in this approach, what remains as a valued advantage of ethnography is that it focuses on the micro-level of interactions.

#### *(Reflexive) Intersubjectivity*

A second set of strategies of objectification has intersubjectivity as its main underlying value. These strategies include practices like interviewing, emailing, face to face conversation or blogging. This intersubjectivity is pursued with varying degrees of reflexivity. In these treatments of the internet, 'cyberspace' is already a differentiated field in terms of what parts of it are considered open to ethnographic approaches. For example, Nina Wakeford distinguishes three kinds of online textualised activities, shaped by the socio-technical spaces they inhabit: information spaces (web, GOPHER), communication spaces (newsgroups, listservs) and interaction spaces (MUD, IRC) (Wakeford 1996). These distinctions imply different social relations, and a different function of technology.

#### *...Seeking Interaction*

Hine's work on the internet is an important case here (Hine 2000, 2001). This groundbreaking ethnographic work is highly successful in addressing a number of issues in an ethnographic approach to the internet (the notion of site, face to face, interaction, authenticity). In making its object, it relies on a strong humanist notion of the subject as source of intersubjectivity. This investment is especially clear if one compares this work to the stance of cyborg anthropology, which seeks to challenge to human-centred project of anthropology (Downey and Dumit 1997). Hine, for example, does not investigate the search engine in this ethnography. Thus, while she too notes that the web is generally considered to be static, and therefore not interactive and not open to ethnography, she recovers/discovers intersubjectivity on the web by seeking non-institutional pages (as opposed to those produced by media outlets), and focusing on those produced by individuals. The assumption seems to be that these are more likely to lead to interaction with individuals. The ethnography is sustained by

the dialogue between clearly interrelated individuals, and an ethnographer who attempts to make herself and her goals as clear as possible. Similarly, Heath and colleagues (1999) interact with users, though somewhat more unexpectedly, not having set out to do so from the start, in the way Hine did. In their study of the Human Genome Project, these researchers also interact with a producer of a website, exchanging about their reading and her production of it. They further explicitly distance this approach to ethnographic knowledge from lurking, because of the latter's lack of engagement with the 'subject matter' (Heath et al. 1999, 460). Like in more conventional fieldwork, knowledge comes from engagement and interaction, always both purposive and incidental.

Intersubjectivity is also an important theme in efforts by some ethnographers to produce a new kind of representation of ethnographic knowledge. These explorations of multi-media ethnography are somewhat different from the other texts considered here, because they mainly challenge the writing tradition of ethnography, rather than the practices of research. In other words, they are part of what Gupta and Ferguson (1997) call the literary turn, taking ethnography from 'thick description' to 'writing culture'. This distinction between objectification and representation is a fuzzy one however, and these novel practices in ethnography may come closer in the future, or might not seem so different in a different analytic framework than the one used here. Thus, while these efforts to produce new *ethnographies* were not explored in detail for this article, it seems worthwhile to mention at least one example of such projects. As part of a project on hypermedia and ethnography at Cardiff University,<sup>8</sup> Mason and Dicks try to make room for the reader in the ethnography as representation. They propose a hypertext as conduit for their work: ethnographic hypermedia environment (EHE). The aim is to problematise the ethnographic object by showing some of the construction of the ethnographic representation, and by enabling the reader to navigate through various ethnographic materials. This project also aims to take seriously critiques of authorship and representations in ethnography, by enabling the reader to navigate her own way through (and restructure to some extent) the materials presented in the ethnographic account. Because such projects invest in the ethnographic values of interaction and co-construction, I include this project here under the theme of intersubjectivity.

### *... Blogging*

Another tool, the 'blog'<sup>9</sup> has been used by a number of researchers to constitute various aspects of their ethnographies. The form has been flexibly used, for a range of purposes that traditionally were pursued in different media and which addressed clearly differentiated audiences. For example, two researchers who pursued different projects both found the uses of blogging multiplying:

The weblogs were originally used as a way to keep our focus while online, serving as constant little reminders of the topics we were supposed to write about. They soon developed beyond being digital ethnographer's journals and into a hybrid between journal, academic publishing, storage space for links and site for academic discourse. (Mortensen and Walker 2002)

Their blogs served not only as an annotated set of bookmarks, but also served to document the research process, and demonstrate the way the ethnographer goes about ‘choosing the items that interest her or that are relevant to her chosen topic, commenting upon them, demonstrating connections between them and analysing them’ (Mortensen and Walker 2002, 250). Blogs become a workspace for the ethnographer.

The blog also plays a specific dialogical role for one of the researchers:

...Torill deliberately used her weblog as an introduction to explain the research to players of games—potential informants—and let them follow the development of the thesis itself. This eliminated some of the mystery and tension related to research, and has on several occasions made it easier to cooperate with online role players: the weblog establishes an accepted online presence which proves that the researcher is real to the digital space and not just a visitor with no knowledge. An [sic] personal online presence legitimates the online researcher much more efficiently than academic affiliation, flesh-world addresses or hone numbers. To skilled online players, it’s easier to fake flesh-world personae than to maintain a consistent long-term online presence. (Mortensen and Walker 2002, 251)

Like many of the other accounts of objectification described in this article, the form of communication and the use of the technology are aligned to the cultural phenomena being investigated (the blog and the phenomena studied ‘live’ in the same sphere). The internet best speaks for itself and is best addressed via the blog, which becomes the ideal instruments for knowing about it. Such alignments are formative moves in the production of knowledge about the internet as object. The researchers argue that the value of the blog is in the exposure, to arguably a wider public, of the process of doing research: the blog’s diversions, asides, and connections show the complexity, creativity and difficulty of the research process. Blogs both help these ethnographers create the object, and make visible the subjectivity of the researcher. The blog is therefore felt to be a context and a mode of communication, a hybrid tool for making, presenting and reflecting on the object that is furthermore exposed in a new way. The alignment of the field and of (some of) the ethnographic writing, however, challenges the practices of leaving the field as the beginning of writing up (Clifford 1997). The blurring of this boundary may have consequences for ethnographic analysis as well as for field relations. Informants might stay close throughout, and ‘leaving the field’ will either be reinvented (ending list memberships?) or else ethnography will develop a more ongoing character.

The informality of this mode of writing, researching and communicating has been the object of backlash in some academic circles (though none, as far as I could tell, were ethnographic), and some scholars have reported that their blogging activities were considered too ‘journalistic’ by their peers (Glenn 2003). These protests may be signs of changing values in the wake of novel forms of scientific communication.

### ... Websites

Other non-paper based forms of publishing and communication have also been used by ethnographers Miller and Slater (2000). The ethnography which led to *The Internet: an Ethnographic Approach*, is linked to a website. This website aims to support the

book: in its paper version, the table of contents and list of plates send readers to the website for illustrations, as does the back cover blurb: 'An innovative tie-in with the book's own website provides copious illustrations'. On this website,<sup>10</sup> one is indeed able to view a slide show of six home pages of websites. These are screenshots of websites (effectively, 'photographs/snapshots' of a single screen displaying one page of a website). These screenshots are shown as a 'slide show',<sup>11</sup> but are otherwise completely 'frozen' in terms of space and time and functionality. The pages cannot be stopped, or clicked upon, or accessed. They function as illustrations, but not as links or connections to a 'live' version of the web. This is a surprising decision (to me), given that the technological implementation is not difficult. This representation can be seen as the internet version of freezing one's object in time, a move that has a long critique<sup>12</sup> in the disciplinary tradition from which Slater and Miller are working. Incidentally, when tracing one of the Miss Trinidad websites mentioned in the analysis, I was led to a soft-porn website. This highlights one of the advantages of using screenshots on a self-controlled website. This provides stability to the object of inquiry, and enables at least part of the object to be seen by readers subsequently, as it existed when visited by the ethnographers.<sup>13</sup>

The website does try to sustain an intersubjective mode in the 'discussion areas' that are related to the main page. The discussion areas are structured according to the main themes of the book. These contain a handful of interventions by people who present themselves as readers of the book and/or ethnographers. Also, in the preface of the book, the authors explicitly request that feedback be sent to them directly, via email, and provide their own email addresses, as granted by their institutions. The fact that the website and email addresses are hosted by the institution of one of the authors perhaps further suggests that the authors see their use of the website as scholarly, collegial academic activities, somewhat separate from the field or from formal publishing. These invitations seem directed at communicating with colleagues about the final representation, though perhaps less about the process (i.e., the site appeared shortly before publication, most activity was in the months immediately following the appearance of the book) or about the object. Here, the internet is both a site for intersubjectivity (communication with colleagues) and a site for 'illustration' of the internet, fulfilling functions that the book is considered unable to perform.

### *Subjectivity Framed Via 'Access'*

An important approach to objectivity in ethnography focuses on establishing a particular kind of subjectivity of the ethnographer, which establishes her as able to know and speak about her object. This subjectivity can be expressed in ethnographic writing using widespread conventions, such as the use of first-person reporting of experiences. Another widespread convention is that of the arrival story, which sets the place of the ethnographer, the reader and the other (see Pratt 1987). The ethnographer is the one who has travelled to far away places, unlike the reader who is 'here'. The ethnographer has witnessed, first hand, the life of the object of study, and has come back to write about it, unlike those who have been the object of the ethnography and

have remained 'there'. A special subject position is thus created for the ethnographer. Hine (2000) notes that these arrival stories can be found in ethnographies of the internet and points to various examples (Baym 1995; Correll 1995). The issue of access as something exclusively available to the ethnographer may be a fiction that is more difficult to maintain in the context of the internet, if only in the face of the hype that defines the internet in terms of its universal, unbounded 'accessibility'<sup>14</sup> (more on this below).

There are also a number of ways in which access is argued to be a truly different issue with regards to the relation of readers, ethnographers and those studied, when the object of study is not set up as remote and far away. When studying scientists and the internet as I do (or in looking at other science and technology contexts), those being studied usually already have other means of expression in the (scholarly) world than only via the ethnographic report. That is to say that the ethnographer's account is not the 'only' text representing people or activities. Scientists have publications, webpages and media interventions, which may be more accessible or even better known to the reader than the ethnographer's portrayal. This 'studying up'<sup>15</sup> can challenge the position of the ethnographer as sole conduit to the exotic. This can lead to games of 'whodunit', where the ethnography is read as a roman *à clé* and the (famous) scientists are identified in various portraits of informants. It can also lead to the ethnographer to a conundrum as to how to use these written texts. It can be difficult to reconcile the conventions of providing anonymity to informants as far as possible, the presence and importance of these texts in the setting, and the academic conventions of providing citations.

Furthermore, the access that readers may have, not only to the people involved, but also to some of the phenomena witnessed, may also be different in the context of the internet. For example, a quotation from a posting to a newsgroup in an article can be quite easily traced using search engines. Given these multiple ways in which 'access' may be realized when dealing with mediated objects, the ethnographer as sole and privileged witness may be more difficult to uphold as a subject position and authorial voice.

To summarise, there are two main kinds of strategies relating to this theme. One is human-centred, in which the strategy of objectification then becomes one of recovering intersubjectivity in spite of the internet, of finding the people behind the webpages, or the colourful characters in the MUD. This approach can be quite sensitive to issues of mediated communication, and the agnostic standpoint in these accounts can be productive of interesting insights into the possibility of an internet sociality. Another set of strategies tries to explore, invest and draw benefits from alternative modes of intersubjectivity that can be enacted in internet contexts. The common implication of these strategies of objectifications is therefore a problematisation of the subjects as well as objects of ethnographic knowledge, or of the relations between them.

## Capture

A final set of strategies of objectification to be discussed in this article focuses on the use of inscriptions and traces, and relies on aspects of mediation and textuality to make

these epistemically profitable for ethnography. In this set of strategies, the epistemic gain of ethnography is related to the notion of 'capture'. The internet as a setting is presented as offering the possibility of total capture, because of the prospect of recovering mediated interactions as text. Availability of these traces via the 'openness' and 'accessibility' of the internet is also a dominant trope in these accounts.

### *Mediation and the Loss of 'Added Value' of Transcription*

The idea of media and of mediation, as part of the technological context of the internet, challenges a further aspect of ethnography. Media (in general, not just the digital) has been seen as a difficulty for ethnography, insofar as a certain model of fieldwork has been fetishised in anthropology, perhaps especially in American cultural anthropology (which has been my reference point, in a lot of my thinking about ethnography). This model, already evoked earlier in this paper, implies a process of face to face interaction leading to transcription and writing up of notes, then upon return to the home territory, writing of the ethnography. For example, this model is presented normatively:

To portray culture requires the fieldworker to hear, to see, and most importantly...to write what was witnessed. (van Maanan, 1988, 3), quoted in (Eichhorn 2001, 574)

With some approaches to the study of the internet, two aspects of this model are considered problematic by researchers: the interactions are not face to face and the transcription may also (seem) to be already completed. Interactions on the internet are seen as textual. This is because

Online communities present the researcher with nothing but text. The ethnographer cannot observe people, other than through their textual contributions to a forum. All behavior is verbal in the form of text. There are no other artefacts to analyze other than text. (Thomsen, Straubhaar et al. 1998, online)

To add to this, the totality of the field is available:

The necessary emphasis on text presents both opportunities and severe limits. In one sense, there is less for the ethnographer to miss in a text-based world of interaction. All speech, behaviour community rules, and community history is, in principle, likely to be available online for the researcher's inspection. (Thomsen, Straubhaar et al. 1998, online)

This assumption may be related to the presence of FAQs ('common knowledge') netiquette ('norms') and archives ('history') in many newsgroups. These are themselves the product of a particular context and history of internet communications (for example, the 'arrival' of newbies as internet services began to expand through commercialisation in the US prompted the creation of these documents). In these accounts, the field is totally available, both in terms of access and in terms of existence of the material for the ethnographer's gaze. Pink, a visual anthropologist, refers to Mitchell's framework for understanding cyberspace:

The net is ambient—nowhere in particular but everywhere at once. You do not go to it: you log in from wherever you physically happen to be. In doing this you are not making a visit in the usual sense; you are executing an electronically mediated speech

act that provides access—an ‘open sesame’. (Mitchell 1995, 8–9), quoted in (Pink 1999, 114)

Accessibility, totality and availability are closely entwined, features that emerge from the purported textuality of the internet. In another example:

In a universe in which everything (and everybody) is produced and mediated by text, the floppy disk is the ultimate field recorder. Nothing escapes the panoptic gaze. (Stone 1995, 243)

Note also that since it is all text, the assumption is that it can all be unproblematically recorded (though the quotation above does raise the question of the persistence of ‘floppy disks’...). But this possibility of capture is also the source of anxiety, because of the importance in the ethnographic tradition of witnessing and transcribing speech and other oral events. And so arises a conundrum: the fact that the field is all there, that nothing is missed of the conversations and speech acts of interest to ethnography would seem a great advantage... but this also raises deep doubts about the contribution of ethnography. If access and transcriptions are no longer unique things that the ethnographer has to offer, what then is the contribution?

This is related to the promise of mechanical objectivity I discussed earlier, but here, the advantage is located in the mediated aspects of these technologies.

Furthermore, the textual turn is also presented not only as a cultural artefact or methodological boon, but also as a meta-theoretical condition for ethnographers. Schaap presents his own context (a multi-user dungeon, MUD) as Geertz’s metaphor turned literal truth. Discussing the passage in Geertz’ text where culture is presented as a text, which the ethnographer is to read, Schaap notes that

Whereas Geertz is bound by the very fact that he uses a metaphor to express his way of making sense of culture, I am here regarding a whole world, metaphorically speaking, that is literally a text, or better, ‘textual’. (Schaap 2002, 30)

When the metaphor becomes literal truth, this not only leads to the use of expressions like ‘literally a text’, but it also signals the loss of analytic distance for the ethnographer. Like Geertz, Schaap aims for thick description, to also convey how these texts come to be. He communicates his findings using a number of interesting narrative and typographical strategies (actively employing the possibilities of textual practices), but the literality of the text seems to overwhelm the analyst. Schaap insists that his work is derivative of the MUD, since he considers it to be ethnography already. The field becomes flat...Schaap cannot read his culture *as* a text, *it is* a text.

If one holds on to the model of ethnography described above, in which transcription plays a key role, Schaap’s stance can be seen as a fetishisation of the community as its own text. If the ethnographer is expected to go somewhere, and bring back a story, then what happens when it seems that the story is already written, and what is more, authored by more legitimate writers? A number of signals convey this anxiety in the ethnographic projects examined here. The many inscriptions and representations that are developed in these ethnographies may be stimulated, to an important extent, by the need for the ethnographer to show clear ‘added value’ to the traces ‘already available’ on the internet. It is also worth carefully consider the claims made about what the

ethnographer achieves, and *does* do (if not transcribing from the oral other), in terms of putting down accounts, transcribing, inscribing or mediating to construct the object.

There has been a prolonged discussion in ethnography about issues of representations and writing. For example:

Textualization is at the heart of the ethnographic enterprise, both in the field and in University settings. In an important sense, fieldwork is synonymous with the activity of inscribing diverse contexts of oral discourse through field notes and recordings. Unlike historical research (with the exception of oral history), ethnography originates in orality and only makes the transition to writing with difficulty. Much of the critique of dominant conventions of ethnographic realism, as well as alternatives to them, thus arises from reflections on the origins of anthropological knowledge in this primary process of textualisation. The ethnographic task as one of inscription, strategies of representing dialogue in ethnographic accounts, and objections to the notions of representations itself were issues that recurred, in the discussions of the seminar. (Marcus 1987, 263)

The issue in the context of the internet seems somewhat different, not so much one of changing 'mode' (oral to written). Rather, the project may become one of producing and justifying different accounts.

Taking up this issue from a different direction, it may be that understanding the importance of textualisation as a core activity in ethnography can help to make sense of the objections to ethnographies of the internet, given the dominant views of the internet as text. Textuality can be associated with a distanced representation, especially when opposed to oral expression. The later is associated with immediacy, the authentic, traceable (because necessarily co-present) speaker. Thus, the focus on textuality may also further explain the distrust of the internet as a context for proper ethnography and concerns about issues of authenticity, trust and deceit.

### *Inscriptions for 'Framing'*

Finally, within this theme of capture, I consider the production of inscriptions by ethnographers. This strategy aims to frame complex, multilayered interactions, so as to make them amenable to ethnographic analysis.

### *...Logs*

Ruhleder and colleagues pursued an ethnography of a 'distance teaching' technology (Ruhleder 2000). One of their main objects was the webpage interface developed for the course, which was supporting an audio lecture, providing both visual material for the lecture and a 'chat facility' for interaction between members of the course. To study this teaching and learning tool, Ruhleder and colleagues both videotaped individual students while they were listening to the lectures, and also used the logs of the chat interactions. Both of these records of the events were used as a way of 'slowing down' these complex, multi-media activities in which the students were involved. This enabled the re-viewing of the actions, and their analysis in a differed time frame. It also enabled correlation of the chat with the lecture and the visual display. In other

words, the inscriptions enabled multi-layered events, also made of various inscriptions to be captured and related within one framework. In their analysis, a further notation of the chat logs would have been useful (providing a time stamp), but the implementation of this required intervention of the technical team developing the teaching software. From Ruhleder's account, it seems that there was little leverage for this to be implemented. This and other adaptations of the system might have provided the opportunity to automate parts of the analysis, and to make more of the data. That possibility remained out of reach of the ethnographers, either because of lack of programming skills or lack of authority to implement these changes into the software. These ethnographers were on board as contributing, partly, to evaluative goals around this e-learning tool. This involvement explains part of the access to the field that was granted to them. The object, however, seems to partly slip away from the ethnographer, who would have wanted or needed to intervene in the technological framework of the internet activities, in order to be able to make her object in the way she wanted. The ethnographer could not get inside one level of the technology's textuality, to mark and therefore frame the object for capture.

... *Videos*

Newman (Newman 1998) reports on a study of software design in a corporate setting. To constitute her field as a network (including the software being developed as an important component of it), she uses video to record whiteboard presentations by engineers designing the software. She adopts this strategy in order to grasp the emerging technical aspect, as it appears in the 'highly indexical, shifting and layered discourse of the networked software design' (Newman 1998, 236). In the presentations about the system under design, complex meanings are expressed and constructed:

It is only through representations of some sort that the technical object in the making can be said to exist. An initial point, then, given the centrality of these representations, is the challenge of first making sense of them and then re-presenting their meanings for non-engineering audiences. From the point of view of developing and expounding an anthropology of the technical object and the lived work of its construction, the necessity of this form of literacy constitutes an important constraint. (Newman 1998, 253)

These activities are integrated into what ethnographers know about social relations. The videos show the inscriptions on the white board but other aspects of the performance of and around these representations on the white board, and her fieldwork experience are also brought in to bear on the interpretation of these videos. Newman uses the videos to deconstruct these events with the help of others, who may have the kinds of specialised knowledge needed to make sense of the performances.

Newman uses video as her own technique of virtuality (Newman 1998, 265, note 33) as a way of extending the space-time in which she can work through representations and understand their interrelations. They also function as a way of asking others for help (i.e., watching them with others). I find it particularly interesting to note that what are being videotaped are themselves interactions around highly inscribed surfaces, just like in the study of the students using the computer mediated tools for learning.<sup>16</sup>

These approaches therefore clearly relate to ‘capture’ of mediated interactions in the field of study, but rather than struggling with the ready made textuality of these traces, the ethnographic move is to add a layer, in order to frame these inscriptions and make them amenable to analysis.

## Conclusion

The contrast between claims to subjectless objectivity in ethnography, so far removed from arguments about the values of engagement (Ross et al. 2002) and presence (Fabian 1994) for the production of ethnographic knowledge, first drew me to this topic. This turned out to be fairly recognizable, and seem perhaps easiest to explain, of all the practices described here. Most of these claims come from ethnographies pursued in a sociological tradition, and cognate areas. It is not surprising that the pressures to shift to what are considered more quantitative and reproducible methods in sociology departments are felt by these researchers. Read in those terms, the use of technologies to analyse data in studying the internet seems a case of just one more tool to answer these well-known critiques. It is interesting to note, nevertheless, that this approach to the use of technology for ethnography has led to suggestions for scaling-up ethnography, making it a sustainable and cost-effective way of observing everyday life for industry, as part of R&D (Marsten and Plowman 2003).

The gentle worries, milder claims and subtler adjustments in these texts about ethnography and the internet seem more interesting to pursue. I am left wondering whether *capture* is not a new theme arising as a dominant trope within the variety of exploration of the internet. This trope may be developing in reaction to the notion that transcription is no longer an epistemic gain in a mediated context.<sup>17</sup> The new possibilities for archiving and retrieving, may also be giving rise to these different ethnographic values.<sup>18</sup> Certainly, a focus on accessing (the totality of) traces would seem to align ethnographers with those who are able to grant such access: system operators, developers of prototypical tools, and other gatekeepers echoing other strategic alliances made by ethnographers with colonial authorities.

Interactivity, as both a mode of presence and dialogue, may be another developing trope, one that is associated with accountability and intersubjectivity, while also being in line with internet sociality and discourse. Some forms of ethnography may have a new kind of visibility and accountability, because of the changing presence of both the ethnographer and of the field—ethnographers are also leaving their traces all over the field.

The overwhelming majority of the ethnographic work I encountered is found in books and in journals, and only a very small portion of it has some web presence. I am curious about this removal from the field of these ethnographies—of course much of it has to do with disciplinary requirements—but I am still wondering if this is not also a way of achieving some epistemic gain. If ethnography of the internet is not about writing down the oral other, it may be about capturing and putting down on paper the digital other.

The anxiety about a possible loss of the epistemic gain of the translating/transcribing ethnographer, through a realisation that textuality is always already present, may also be compensated by the creation of yet more complex transcriptions, such as network diagrams, large-scale semi-automated content analysis, and so on, as illustrated above. This may, I think, lead to interesting new conversations between ethnography and other methodological approaches.

Given the focus on textuality, these moves bring ethnography closer to cultural studies, literary studies and media studies. In the American context, the rapprochement of cultural studies with anthropology has been somewhat tense. The other possibility is of course that because of the closeness to these other fields, ethnography of and on the internet will remain marginal in anthropology. Some prominent anthropologists have said as much, and discouraged students to undertake projects where the main field site would be 'online'.<sup>19</sup> It may be that the internet will creep into ethnographies, as anthropologists follow their subjects, and are more or less forced to follow them online. This might demarginalise the internet as object of study, but perhaps at the cost of a more conservative treatment and a reification of technology, if 'offline' remains the starting point of ethnography, and 'online' is posited as a self-evidently bounded realm.

### Acknowledgements

I would like to thank Elena Simakova, Katie Vann and other colleagues at NerdI for comments on an earlier version of this paper, as well as the respondents, speakers and participants to the Objects of Objectivity workshop and session on 'Freeing' Open Source: Action Research and Ethnographic Perspectives, Society for Social Studies of Science 27th Annual Conference, October 15–18, 2003, Atlanta, GA, USA.

### Notes

- [1] There exists a large body of knowledge on ethnography and its many instantiations into different schools and orientations. For readers unfamiliar with this approach, I offer the following thumbnail sketch, largely inspired by American cultural anthropology. Ethnography is often associated with the idea of 'fieldwork' (see Gupta, A., and J. Ferguson. *Discipline and practice: 'the field' as site, method and location in anthropology*. In J. Ferguson, ed.) While this is indeed an important feature of ethnography, perhaps more central to the approach is the concern to provide accounts of what activities mean to people who do them and the circumstances that give rise to those meanings (Harper, R. (no date). *The organisation in ethnography: a discussion of ethnographic fieldwork programs in CSCW*, <http://www.surrey.ac.uk/dwrc/papers.html>.) Description is therefore part of the method and the output of ethnography, but it is subsumed to a partnered understanding of context. The analysis of context is a key element in ethnography, since not only what events mean to participants is of interest, but also how the possibilities for meaning are themselves organised. Ethnographic methods therefore focus on observing and analysing a variety of 'patterned interactions' and provide an understanding of how and why these are meaningful. Taken together, these interactions and the conditions that make them meaningful, can be labelled 'culture' (Traweek in Pickering, A. 1992. *Science as practice and culture*. Univ. of Chicago Press).

- [2] For further discussions of the possible use of ‘community’ for internet relations, see Escobar, A. 1994. Welcome to cyberia—notes on the anthropology of cyberculture. *Current Anthropology* 35 (3): 211–321.
- [3] See Hine, C. 2000. *Virtual Ethnography*. London, Sage. For an in-depth discussion of this issue, see also several chapters in Hine, C., ed. in press. *Virtual Methods: issues in social research on the internet*. Berg.
- [4] These complaints resemble those of historians pursuing archival research (Chandra Mukerji, personal communication). This analogy further highlights the textual orientation of this research, as discussed below.
- [5] Social anthropologists have been incorporating computers into their study of kinship, using them for computation, visualisation and modeling ([http://www.era.anthropology.ac.uk/Era\\_Resources/Era/Kinship/index.html](http://www.era.anthropology.ac.uk/Era_Resources/Era/Kinship/index.html) at the Centre for Social Anthropology and Computing (CSAC)—University of Kent at Canterbury, and teaching of kinship principles (<http://www.umanitoba.ca/anthropology/tutor/index.html>.)
- [6] I was not aware of the elaboration by Bourdieu of this phrase, until reading Bos, appearing in this issue.
- [7] A lurker is someone who is part of an activity on the internet, but without making explicit/overt contributions to it. For example, reading a newsgroup, without posting messages to it is considered lurking.
- [8] <http://www.cf.ac.uk/socsi/hyper/p02/index.html>
- [9] Blog is a contraction of ‘web log’, a newish genre of webpage that is usually regularly updated, written in a very personal tone and containing many hyperlinks.
- [10] <http://ethnonet.gold.ac.uk/>
- [11] Note the metaphorical appeals to other media, other representational technologies, to convey these practices.
- [12] Among others, see Fabian, J. 1990. *Time and the other: how anthropology makes its object*. New York: Columbia University Press.
- [13] This is itself a complex issue for scholars of the internet. See Koehler, W. 2002. Web page change and persistence—a four-year longitudinal study. *JASIST* 53 (2): 162–71.
- [14] The effects of such discourse about the radicality of new ICTs (including the democratic and open character of the internet and its ability to level differences in ‘access’) are detailed in Steve Woolgar’s ‘five rules of virtuality’ in Woolgar, S. 2002. *Virtual society? Technology, cyberbole, reality*. Oxford: Oxford University Press.
- [15] This term denotes studying the more powerful, rather than those who are down, in relation to the ethnographer. Nader, L. 1972. Up the anthropologist—perspectives gained from studying up. In D. H. Humes, ed. *Reinventing anthropology*. New York: Pantheon Books, pp. 284–311.
- [16] This may point to an issue that deserves to be explored further. In both examples of the use of video given above, the idea here is not to catch something that ‘words’ or notes could not transmit, for example, because of intrinsic visual or emotional quality. Rather, it is the complexity of inscriptions, of other textualities and mediations, which needs to be captured and ordered via the videotape here. Is this an issue that arises from studying up, from dealing with complex inscriptions and abstract modern, scientific objects? How would this compare to other arguments in visual anthropology, as to why video is being used?
- [17] This also being played out in the quantitative explorations of the internet: part of the glamour of building one’s own crawler may lie in the systematic and well-ordered, controlled capture of the object, and an escape from the tyranny of the unstable search engine (cf. Wouters, P., and D. Gerbec. 2003. Interactive internet? Studying mediated interaction with publicly available search engines. *Journal of Computer Mediated Communication* 8 (4)).
- [18] The mediation and its possible consequences (archiving, researching, retrieving), have been noted by Derrida in his discussion of the archive. Brown et al. 2002. In Woolgar, S., ed. *Virtual society? Technology, cyberbole, reality*. Oxford: Oxford University Press. note how archiving

may be a strategy of ass covering, which may in turn limit the freedom of further action (i.e., the archive means that one's commitments can always be documented). They find that the availability of the past via email constrains what can be done. This may also be the case for ethnographers.

- [19] The most resounding account of the undesirability of such an endeavour is probably Clifford's comments in print, see Clifford, J. 1997. Spatial practices: fieldwork, travel, and the disciplining of anthropology. In J. Ferguson, ed. *Anthropological Locations*. Berkeley, CA: University of California Press, pp. 185–222.

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