

SITUATING LIQUID MEDIA USE: CHALLENGES FOR MEDIA ETHNOGRAPHY

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One of the main challenges facing media ethnographies is studying media practices in a media environment in which former boundaries between media and the ways we use them have collided or ‘liquefied’.

The difficulty lies in defining the locus of media practices. People dispose of an ever expanding and more mobile, digital media repertoire through which they access content anytime, anywhere. As such, identifying the spatial, temporal and social context through which media users ‘float’ becomes ever more challenging. In this article, we draw on our experience with a semi-experimental digital ethnography on interactive news practices among non-lead users to pinpoint and reflect upon the challenges this ‘liquefied’ environment poses for media ethnographies, both on a conceptual and a methodological level. We will shed light on the continuous, self-reflexive balancing act during the research, between obtaining sound data and burdening the participants and between respecting the ground rules of ethnographic research and opening up towards new perspectives, such as the Living Lab approach and probing. We build the case for media ethnographies as forming an indispensable methodological tool for gaining insights into the way people give meaning to the media they use, as long as ethnographic practice remains open to conceptual and methodological innovation.

KEYWORDS

digital ethnography, Living Lab, media ethnography, methodological challenges, new media

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Media devices, what people do with them, and how all of this fits in the organization of our everyday life disrupt and unsettle well-established views of the role media play in society (Deuze, 2010: 2). Medium theorists go as far as to say that it is no longer institutions or communities that define who we are, but rather our styles of mediated communication (Lindlof, 1996: 589). While this might be too deterministic and narrow a vision, the fact that a large part of our daily activities in developed societies are mediated through technology is undeniable. The study of media use then becomes increasingly important; not only in order to understand how media practices are formed as such, but also to comprehend the role of mediated practices in other societal spheres. Media become an ever more significant 'place' where societal evolutions are enacted. The 'pervasively deployed digital media technologies', often referred to as ubiquitous media, '*de facto* facilitate social events [and] have become now indispensable, enabling people to access media-rich content anywhere and anytime for effective communication, education, business, and entertainment' (Lau et al., 2011: 218).

At the same time, the place – everywhere – and time – anytime – in which media are enacted become ever more difficult to locate. Our media consumption becomes fragmented between different devices; we use media virtually everywhere through mobile devices and we consult information in little bits (like a tweet, a short video). This renders an increasing part of our media practices very volatile, happening in the blink of an eye, *on the screen*. In his book *Media Life* (2012), Mark Deuze argues that media are increasingly so ubiquitous and pervasive that they become transparent through our daily use of them. This leads him to posit that we live *in* media rather than *with* media (see also Deuze, 2011). If this is the case, the implications for media ethnography are highly significant and fundamental.

On the conceptual level, we will need to expand our notion of media practices in order to address the blurring of boundaries between consumption and production (Bruns, 2008; Deuze, 2011, 2012), public and private (Deuze, 2011) and fixed, mobile and nomadic media use (Podnar et al., 2002). These 'liquefying' borders between specific contexts of use have certainly been acknowledged in the past by media ethnographers and media researchers at large. However, the continuously evolving media sphere, and especially 'the increased detachment of objects and specific contexts brought about by the consequences of convergence' (Courtois et al., 2012: 6) requires media researchers to incorporate the specific socio-spatial context in which media are used as a distinct factor affecting people's media experience.

The 'transparency' of media also confronts media ethnographers with issues on a methodological level. (Media) technology should be studied as a set of socio-technological interactions between people and artefacts, situated in a specific social context (Ratto, 2000) and observed where, when and while they are used (Suchman, 1987). If media are ubiquitous, everywhere, anytime, media ethnographies become even more difficult to execute than they already were. How to elicit media practices that become ever more 'transparent'? How to follow people through the different often very volatile contexts, both socio-spatial and social, in which they use media through the day?

In this article, we would like to address these challenges. We will first focus on how changing media use practices compel us to question the way we conceptualize media consumption. The metaphor of 'liquidity' used by Mark Deuze (2010) will be explored as a useful concept to frame the issue. Subsequently, we will take a closer look at how these issues are externalized 'in the field'. Building on our experience with a semi-experimental, digital ethnography on interactive news use, we identify the main issue as being the difficulty of delineating the locus of media practices and the problem of grasping the 'liquid' media user. Finally, we envision possible solutions to the challenges identified. New logging and mobile technologies can offer means to follow media users as they 'float' through their different media practices.

Liquid Media Use: Conceptual Challenges

Originally, the term '*liquid*' was coined by Zygmunt Bauman, who speaks of a liquid modern society in his book *Liquid Life* (2005). In his work, the term is introduced in order to formulate a sociological critique on present-day post-postmodern society. Bauman's 'liquidity' refers to the human condition becoming ever more ephemeral because everything has become disposable in society: fast consumption engenders a continuous need for renewal, rendering everything, from labour to knowledge, obsolete once it is no longer new and consumable (Bauman, 2005: 10). According to Bauman, this not only applies to the goods we consume but also to ourselves as human beings: we need to constantly update our skills and knowledge for fear of becoming obsolete (2005: 148–9).

Mark Deuze (2007) builds on Bauman's notion and applies it to the evolutions that have been taking place in the media ecology in the last decennia due to the digitalization of information. He interprets liquidity as once distinct spheres of life flowing one into another. Economic, political, societal and technological evolutions lead to a continuous submersion of the user in various forms of media. In turn, this amplifies the convergence of distinct spheres of activity of daily life, resulting in fading boundaries between work and the private sphere, but also between consumption and production and between active and passive media consumption (2007: 30–3).

Indeed, our use of media in particular is no longer bound to specific spheres. As regards the blurring divide between consumption and production, this is exemplified by the steep rise of user-generated content. Many currently successful media such as Facebook are built upon the contributions of users. Of course, amateur content production is not new; but the fact that common users can access a large distribution infrastructure, namely the internet, to reach a potential public of millions is (Castells, 2007). Consequently, when looking at media consumption, we need to take

into account the fact that many media practices now incorporate a form of user production. Axel Bruns (2008) speaks of ‘produsage’, a synthesis of production and usage to point out the fact that it becomes increasingly difficult to speak in terms of media production and consumption as distinctly separate information processes. Consequently, looking at media consumption without taking into account the possibility of users also producing content would mean overlooking a large part of the ways in which people are using media (Picone, 2011: 117). We therefore prefer to speak of ‘media users’ and ‘media use’ instead of ‘media consumption’, as the former terms imply an active exchange where information can also be produced and distributed by media users, rather than merely be watched, read or listened to (Burnett and Marshall, 2003: 73).

As regards the work/private sphere, the computer used to be part of work and television part of the private home, both physically and in terms of functionality (productivity versus entertainment). The dematerialization of media (content), which Lister et al. (2003) – to a certain extent also leaning on the metaphor of liquidity – refer to as media being in ‘a constant state of flux’, has ‘liquefied’ both. The traditional tight relationship between a medium and *its* content no longer applies (Courtois et al., 2011). Sure, media have since long been recognized as having a material component (artefact) and an immaterial or symbolic one (text), best illustrated in Morley and Silverstone’s (1990) idea of the double articulation of media. However, media convergence has led to the uncoupling of specific content formats and media artefacts. Users are no longer bound to consume audio-visual content on dedicated devices like televisions or hi-fi systems usually found at home. Similarly, a work document does not necessarily have to be edited on the computer at work. Portable, connected ‘computers’ like laptops, smartphones and tablets allow for productivity and leisure activities to be run – and used – literally at the same time. The pervasive presence of such computers in our daily lives has led to a virtual coalescence of work and the private sphere, as well as an extension of the idea of media being available ‘anytime, anywhere’ (Rader and Boehle, 2008: 54).

Literally and figuratively speaking, media consumption has left the building. Consequently, when we want to study TV consumption, we cannot limit ourselves to the study of media consumed live through a television set, but should also look at television programmes consulted on other devices, at later times, in a variety of spatial and social settings. Also, these evolutions have turned media consumption into a very individual experience. The ubiquity of media around us allows us to consult all kinds of content when and where we want it, leading to what Deuze (2007: 30) terms ‘personal information spaces’. ‘Personal’ here should be interpreted in two ways, namely as ‘tailored’ and as ‘private’. Indeed, the availability of so many media leads to an ever-increasing variation in the

constellation of users' media repertoire. As Couldry et al. (2007: 190–1) note: 'the particular constellation of media on which one individual draws may be quite different than another's'. But 'personal' should also be understood as 'private'. Watching a movie on an iPad on the train or texting friends while having drinks with others are examples of how a private sphere is created within a public sphere (Pierson et al., 2006: 4). We will increasingly have to take both aspects into account when applying media ethnography.

This variation in the constellation of people's media repertoire is amplified even further as media content can be consumed 'anywhere, anytime'. Contextual factors shaping people's media experience become of increased importance. Still, we might need to reconsider the role we attribute to contextual factors in our analysis of media practices. Although invaluable, the attention for contextual factors has, paradoxically, to a certain extent blurred our understanding of the reception of media texts and the meaning of objects as such. Traditional audience ethnographies (e.g. Lull, 1980; Morley, 1988) have always emphasized the role of elements outside of the actual relationship between media and their audience in the way people experience media. Media ethnography largely takes into account the idea prominent in domestication theory proposed by David Morley and Roger Silverstone (1990) of media as a double articulation: the meaning we give to media comes forth out of the articulation of media as symbolic content and media as a technological artefact. This articulation is embedded in our everyday routines and practices.

While still valuable, this approach can be questioned when taking into account the evolutions in media use described earlier. The contextual factors in these 'classic' audience ethnographies mainly comprise the social, and specifically domestic, relationships and time-structures in which the use of media is embedded (Picone, 2010: 86). This focus on the 'moral economy of the household' (Silverstone et al., 1992: 16) is understandable as, back then, we were basically limited to linear broadcasts to be watched on a television set that was most often located in the communal space, that is, the living room (Courtois et al., 2012: 5). Today, for example, parents often lag behind in their ways of using new media compared to their children, who develop their use and give meaning to media within, to paraphrase Silverstone, *a moral economy of connected peers*. As media use 'liquefies', we need to more explicitly acknowledge that (audio-visual) media can be used in a variety of domestic and non-domestic, private and work-related, sedentary, mobile or nomadic, isolated or connected spatiotemporal and relational environments. As Peter Dahlgren (2009: 151) notices: 'the humanities and social sciences have in recent years become increasingly sensitive to the spatial dimensions of social and cultural processes: The "where" is catching up to the "how".'. Also, from a more applied research perspective, the understanding of the role of the

media use context on media experience is of increased importance. How people access multimodal media in different contexts of use is the key to delivering appropriate interactive systems to humans (Lau et al., 2011: 218).

Therefore we tend to follow Courtois et al. (2011, 2012) when they propose incorporating a third articulation in the study of media use. Building on the work of Maren Hartman (2006) and James Hay (2001), Courtois et al. (2012: 5–6) argue that variation in the socio-spatial modes of media use engenders different meanings. Consequently, the authors propose acknowledging the immediate socio-spatial context as a distinctive articulation that is independent of, yet intertwined with the object articulation in allowing the semantics of the media text to be articulated as well (2012: 6).

If we recognize the liquidity and ubiquity of today's digital media, we need to incorporate and integrate it into our conceptualizations and methodologies for researching media use. John Urry even suggests a paradigm shift allowing us to focus on 'mobilities' and to study the 'processes that circulate people, objects and information at various spatial ranges and speeds' (2007: 52).

In summary, these evolutions require a reconceptualization of 'media experience' that takes into account:

- *the dematerialization of content* – watching television, listening to the radio, reading the news, etc. become obsolete connections as they suggest a fixed relationship between a form of media content and a mediating artefact, which is no longer the case;
- *the blurring divide between the sphere of media production and consumption* – talking about 'media use' and the 'media user', while still acknowledging that media users can have the characteristics of an audience or public, is a way to conceptually encompass this;
- *the individualization of media use* – media users are submerged in personal information spaces and personalize their media repertoires. Research in media use will have to take into account the increased variation in use patterns resulting from this personalized media experience;
- *the articulation of context*: as the question of 'where' media use practices take place becomes increasingly important, 'context' should be considered as a full part – alongside the content and the artefact of a medium – of the articulation of media that defines our media experience.

Situating Liquid Media Use: Methodological Challenges

Media and communication studies can build on a large tradition of ethnographic research aimed at unravelling the relationship between media and their audience by studying media practices in everyday contexts (Picone, 2010: 86). Media ethnography has not failed to adapt to the changes the media ecology has been through in recent decades. Spurred on especially by marketing research and commercial ethnography at the beginning of the 1990s, the internet and digital media in general have been adopted in ethnographic practices both as an object of study (observing people's online activities) and as a data-gathering method (Masten and Plowman, 2003): *multimedia ethnography* (Goldman-Segall, 1992), *netnography* (Kozinets, 1998), *cyber- or virtual ethnography* (Hine, 2005; Ward, 1999), *hypermedia-ethnography or cybersociology* (Masten and Plowman, 2003) or *mixed mode* (combining offline and online methods; Koller and Sinitsa, 2009) are but a few names that point towards ethnography opening up to digital media.

We prefer the use of digital ethnography (Masten and Plowman, 2003; Murthy, 2008), as it accentuates the necessity to conform to the core ethnographic principles, while focusing on the question of how traditional ethnographic data-gathering methods can be complemented by new and creative ways to encompass the internet and mobile devices. It should be clear that digital ethnography does not replace, but complements 'physical' ethnography, providing ethnographers with an even wider array of methods to tell their story (Murthy, 2008).

Despite media ethnographers expanding the locus of social practice to encompass the 'virtual' and adding digital data-gathering methods to their methodological toolkit, adapting to the ever-evolving media ecology remains a work in progress. Indeed, in the last hundred years, the way in which media are produced, distributed and consumed has again evolved greatly. Media consumption has become converged, mobile and connected. The metaphor of 'ubiquitous' and 'liquid' media is useful in understanding the main challenge introduced by digital media in ethnographic research. If media are ubiquitous, then where is the locus of media practices situated? Everywhere? Anytime? If media become liquid, and media use does so too, then so does the locus of media practices. How can we locate the media user and his/her practices if these become 'liquid', almost volatile, across different contexts of use? To paraphrase Deuze, if we live in media, where do we need to look for media practices? In life?

We were confronted with these challenges when setting up a semi-experimental digital ethnography as part of the Flemish E-publishing Trends (Fleet) interdisciplinary research project. The ethnographic study took place within the work package aimed at uncovering the way in which traditional media users experience the interactive possibilities of participating to the news. The main findings of this study, as well as a detailed elaboration of the methodological set-up, have already been discussed

in previous publications (Picone, 2011, 2010). Therefore, we will give a short overview of the methodological set-up, but will not elaborate on the data analysis and the results, as this article focuses on how we tried to meet the methodological challenges described above.

Research Set-up

Within the Fleet project, we set up a semi-experimental, qualitative user research among casual news contributors – as opposed to more structural contributors like bloggers, citizen journalists, etc. We describe this research set-up as semi-experimental because it builds on an ethnographic approach while still, to a certain extent, intervening in participants' daily routines. This approach is inspired by the Living Lab methodology (Lievens et al., 2006; Ståhlbröst and Bergvall-Kåreborn, 2008) and Proxy Technology Assessments (Lievens et al., 2008; Torben Nielsen et al., 2008), where digital technologies are introduced in real-life settings and their use is then studied through qualitative, digital data-gathering methods. Living Labs can be described as 'environments for innovation and development where users are exposed to new ICT solutions in (semi)realistic contexts, as part of medium- or long-term studies targeting evaluation of new ICT solutions and discovery of innovation opportunities' (Følstad, 2008: 116). Jo Pierson et al. (2005) point out the principles common to Living Labs and ethnography: investigating human behaviour in a natural setting, adopting an interpretative approach and having an inductive, exploratory attitude. They describe the Living Lab approach as a structuring guideline for setting up media ethnographies in the most optimal way.

Concretely in regard to the study within the Fleet project, the participants were sampled based on their score on a questionnaire aimed at obtaining a maximum variation among participants, that is, a strong heterogeneity within a sample on the dimensions of interest (List, 2004; Polkinghorne, 2005). The rationale behind such sampling is that through a strong variation in the sample of participants, the data represent a fair number of the available possibilities. Furthermore, it allows common patterns that cut across the variations to be discerned (Patton, 1980).

The dimensions of interest were found in the work of Nguyen (2008: 234–41). He identifies three dimensions shaping online news use: orientation towards news, new media-mindedness and internet experience. Nguyen argues that these dimensions to a large extent determine the way users engage with the news online. Our sample thus had to consist of participants with different kinds of profiles on these dimensions in order to incorporate a relevant variation of news users in our sample. Eight possible profiles were identified (see Table 1).

	<i>Profile</i>	<i>Short-term</i>	<i>Long-term</i>
1.	Internet experience, new media minded and news-oriented	Gerard (46), Antje (59), Gina (26), Jessy (22)	Jan (45) Lina (28)
2.	Internet experience, new media minded and not very news-oriented	Quentin (26)	Pieter-Eric (23) Clara (26)
3.	Internet experience, not very new media minded, and news-oriented	Anne-Marie (64) Pierre (46)	Edward (58) Marie (48)
4.	Internet experience, not very new media minded and not very news-oriented	Christianne (50) Koenraad (46)	Anna (32), Alexandra (29), Truus (50)
5.	Not much internet experience, new media minded and news-oriented	François (39), Kurt (41), Marjanne (58)	Tony (30) Piet (29)
6.	Not much internet experience, new media minded and not very news-oriented	Juliaan (19), Mark (29)	Pina (35)
7.	Not much internet experience, not very new media minded, and news-oriented	Anja (46), Robrecht (66)	Annette (55), Danny (63), Jeanne (63), Josef (78), John (38)
8.	Not much internet experience, not very new media minded and not very news-oriented	Cindy (37), Lukas (41)	Kristien (29), Veronique (33), Stan (35)

Table 1 Cross-tabulation of the different news user profiles according to a maximum variation analysis (pseudonyms are used, age in brackets)

The final sample included 38 participants, men and women from different socio-economic backgrounds, with a fairly even distribution among the participants. All were living in Flanders or Brussels and were between 20 and 72 years old. We chose to work with two groups, a short-term and a long-term one.

The short-term group served as an exploratory one in order to generate information on the way participants experienced productive news use. The group consisted of 18 participants. They were questioned through a diary-interview. The participants were asked to keep track of their media use during one week through a day by day paper diary with closed and open questions. They were also asked to fill in a daily hour by hour schedule of their media-related and news-related activities.

These reflections were then further investigated in the in-depth interviews following the diary period in order to obtain a more refined idea of why and how people give meaning to the different news sources they use.

The second, long-term group, consisting of 21 participants, was also questioned through a diary-interview, following the same procedure as the first group. They were then asked to record different forms of productive news use consecutively, for three weeks each and during a nine-month period. In a news context, the main forms of productive news use can be identified as retrieving news on demand, evaluating news, sharing news and commenting on it (Picone, 2008). This procedure seemed necessary because casually contributing to the news means that one is not actively interacting with news sites on a regular basis, or one sticks to a certain form of interaction (e.g. only rating news). This would complicate the identification of factors underlying productive news use as a whole. Therefore the participants all had to be acquainted to a certain level with the relevant forms of news interaction.

The long-term phase was concluded with a second in-depth interview where the participants were asked about their experiences with the different interactive features. The diary-interview, the mail questionnaires and the logging reports served as input for the topic list of those interviews. The diary-interviews and the concluding interviews combined resulted in 42 interviews being coded.

The analysis of the data resulted in the identification of 16 different sets of factors (Picone, 2011), organized in 8 clusters and 3 overarching dimensions representing a relevant set of motivational, situational and social factors shaping the practice of productive news use. We identified productive news use as being an ad hoc act of self-publication, requiring a certain investment of the user. The magnitude of investment is relative to personal, social and content-related dimensions.

Identifying the Locus of Media Practice

The aim of our research was to obtain a deeper insight into a specific media practice, namely interactive news use. An option would have been to become a participating member of a news community, and observe and interact with the users of such a virtual message board or forum (see e.g. the approach of Hine, 2005). However, this would leave a large part of interactive news practices uncovered. Indeed, this would allow obtaining a view of how user participation in a public forum is experienced and what interactions take place between the members, but would leave other forms of interaction with news unobserved. User interaction with and participation in news messages is a largely individualized experience that can occur in many different public/private, virtual/physical places; on a news community site or in the comment sections of an online article (public virtual places), but also on Facebook or LinkedIn (restricted public virtual places) or even in an email

or chat conversation (private virtual place); and all this can happen at home, at work, on the go, etc., and on almost any kind of media device at hand.

This clearly shows how media practices defy the border of public and private, of virtual and physical. Media practices can take place on different crossroads between those spheres, meaning that the media ethnographer would need to be present at, or at least have access to, these crossroads, which is not self-evident. Participant observation seems difficult, as it would imply that participants would be virtually stalked by the researchers as they consult media at home, on the train, at work and even between times. Both in terms of effort by the researcher and of invasiveness into the participant's life, this is obviously not feasible. In-depth interviews, on the other hand, can offer the necessary insights. Still, the known shortcomings of in-depth interviews, most notably in this case retrospective bias (Carter and Mankoff, 2005; Johnson and Bytheway, 2001), remain in play. A lot of news practices occur at different times of the day, often even during short moments of spare time in between other activities. When asked about their news practices in an in-depth interview, participants will have a global idea of their activities and the decisions they make when asked to contribute to or interact with the news. However, the chances are high they will omit – often by mistake – reporting certain elements of their experience as the interview does not occur on the spot. Here, the methodological challenge becomes clear: how can we conceive of appropriate data-gathering methods that can enable us to access media practices that are mainly individual; occur in different contexts and through different spheres of everyday life, and on a wide array of available devices.

Part of the answer is – although still on a more conceptual level – offered by danah boyd (2008) when she speaks of 'entry points'. She proposes finding different entry points into a phenomenon by following relations between people and practices, by envisioning relations between persons, spheres and objects instead of approaching those elements in isolation from each other. Applying this idea to our ethnographic study, we would argue that every participant becomes an entry point into the use practices of interactive news. The accounts the participants offer of their own media use, the context and spheres they use it in and how they experience it accordingly can then be analysed in order to uncover the various relations between persons, spheres and objects.

While this does not immediately solve the practical problem about how to access the 'floating' locus of media practices, it points out the direction in which the solution can be found. If the user is our entry point to 'liquid' media practices, we will need to devise data-gathering methods that follow the user as he or she fluidly uses media across spheres, objects and contexts.

Grasping the Liquid User: Looking for Alternative Means

In the presented semi-experimental, digital ethnography we have adopted the approach of users as entry points. We have tried to ‘follow’ our participants in various ways, combining different, more experimental data-gathering methods found in other disciplines like human–computer interaction research. The aim was to use these entry points to obtain as much information as possible about the ‘transparent’ and ‘liquefied’ news practices of our respondents. We used a combination of diary studies and technological probing (PTA). This constellation of data-gathering methods enabled us to document media practices, but still leaves some questions unanswered.

When it is impossible to assess media use through observation or intensive contact with the participants, diary-interviews are recommended (Cohen et al., 2006), because they allow the study of experiences and processes in their natural, spontaneous context (Bolger et al., 2003; Laurenceau and Bolger, 2005), which is in line with the ethnographic spirit. Following Jacobs and Van den Broeck (2008: 5), diaries offer a good tool for collecting interpretations and meanings of the rhythm and actions in everyday life rather than for collecting ‘factual’, observable data. Still, we also incorporated a series of more factual questions, as they allowed us to get an idea of the media used by participants to consult news; and when, where and how frequently they consulted news and how they felt about it. Such self-reported data on media use might lack accuracy, but such information served as concrete points of departure in the interviews, facilitating the elicitation of motivations and thresholds underlying those practices, and reducing retrospective bias.

Of course, diary studies come with constraints. Broadly speaking, when using diary studies, one is forced to perform a dual balancing act (Picone, 2010): between the observational and experimental qualities of the method and between the accuracy of the data gathered and the burden this poses on the participants. It is not always clear what the effect of introducing a diary is on the participants’ answers. Bolger et al. (2003: 591–2) identify at least three possible effects: reactance, that is, possible changes in the participants’ experience; habituation, that is, filling in the diaries becoming routine; and an altered understanding among participants of the phenomenon under study because of repeated exposure to the diary. In that sense, diaries are not only burdensome for participants, but also for researchers, who need to invest a lot of time in the training and follow-up of the participants (Stopka et al., 2004; Toms and Duff, 2002). Furthermore, as with all forms of self-assessment, we need to take into account that people’s capacity of consciously assessing, remembering or reflecting upon their own experiences is limited (Polkinghorne, 2005).

As regards the use of technological probes, this initially served the purpose of studying the participants' attitudes and perception of interactive news features they did not already use. Still, like diary-interviews, this method can provide access to unconventional and complex settings, like the personal sphere (Fitton et al., 2004). While implementing the proxies, we noticed that these also allowed us to observe certain parts of people's interactive news use. We were in possession of their login information; we could log in ourselves and observe certain ways in which they used the services. The participants gave their consent and were aware of the researchers having access. Because this did not occur through their private accounts, they were not reluctant to grant us access. This granted us a series of figurative and literal snapshots of the way in which they used the application, what content they interacted with, how often they interacted, etc.

This kind of information appeared most relevant as, again, concrete points of departure in the interviews, allowing us to refer to actual situations and confronting participants with their actual practices, rather than the subjective reminiscence they would have of them. The downside of this method lies in it being very demanding for both participants and researchers, not only in terms of time and effort but also in terms of disclosure and intrusiveness. Hence, this method requires a balancing act between observation/experimentation and data accuracy/burden similar to the one needed when using diary-interviews.

Lessons Learned

In the semi-experimental digital ethnography on interactive news use presented in this article, we tried to meet the challenge of situating the locus of media practices in a 'liquid' media environment. We therefore adhered to boyd's suggestion of considering the news user as an entry point towards media practices, which left us with searching for ways to grasp this equally liquid media user. Looking at other disciplines, we incorporated two specific methods, diary-interviews and technological probing, into our ethnographic design. The data gathered through these methods was used both as information as such and as input for concretizing the in-depth interviews.

Have these methods, and the underlying idea of considering media users as different entry points into media practices, now contributed to a better 'grasping' of people's liquefied media use? To a certain extent, yes. Both the diary studies and the probes enabled us, to some extent, to 'follow' participants and their media use over different spheres, contexts and devices. Their advantage is not so much that media use is rendered less transparent for the ethnographer, but rather for the participants. Keeping track of the media they used caused many of the participants in this study to reflect upon their own media habits. Some participants, for example, were

convinced they were rather light media users until filling in the diary confronted them with the fact that they consumed more media than they thought initially. In that sense, these methods still do not allow us to observe a participant's full range of media practices, but they do help to improve our entry point into those practices by making the user more aware of the media he/she uses.

Another benefit of using these methods to grasp specifically the volatile nature of certain media practices is that both the diary and the probes allowed us to uncover certain media practices or specific details of them. This is different from observing a chat room or online forum, where interactions are public, and hence traceable and observable. It is more difficult to penetrate into the *personal information spaces* Deuze speaks of, where a lot of media are being consumed.

For example, having access to participants' accounts on Google Reader allowed us to have a look behind the scenes: What content is consulted? When? How many items at a time? How does this change from day to day? Certain patterns emerge that a researcher would not have thought of investigating. This information offers an interesting starting point for eliciting data during in-depth interviews as it allows participants to start from a concrete situation and elaborate on it (Carter and Mankoff, 2005). Again, this improves our entry point in media practices by rendering certain – aspects of – media use more explicit.

These methods have proved to give us access to media practices that are at risk of becoming invisible to media ethnographers. As such, they fit in a methodological approach that takes into account the issues posed by 'liquid' media. Of course, the methods put forward do not come without constraints. First, as we adhere to the idea that digital ethnography should conform to the core ethnographic principles, we can certainly question whether the proposed data-gathering methods fit that criterion. We definitely went further than simply observing and interviewing participants, as we introduced both self-reporting tools and probes into their daily use of media. While this seemed a necessary step in order to access otherwise ungraspable aspects of media use, one can argue that these kinds of interventions are too much of an experimental nature to still be labelled as genuinely ethnographic. While we certainly remain open to the critical assessment of the use of these data-gathering methods in ethnographic research (see among others Gaver et al., 2004; Hemmings et al., 2002), we have adopted an attitude of continuous self-reflexivity through the process which makes us confident that such methods can be applied without hampering the ethnographic spirit (see among others Boehner et al., 2007; Hutchinson et al., 2003).

The second challenge is how to make these methods less burdensome for both participants and researchers. Our experience is that keeping participants motivated to try to assess different news applications and self-report on this through diaries, email questionnaires and in-depth interviews requires more than large incentives – it is also a question of trust and altruism in relation to the researchers. But for this trusted relation between both parties to take form, a lot of investment in training, explanation and availability is required of the researchers. We had the opportunity – and the luxury – to perform this research within a large-scale, four-year research project that gave us the means both financially and in terms of time to set up this kind of research. Implementing these methods in short-term projects will be more problematic. Still, we believe that in our case, this approach was worth investing in, as we did obtain a magnitude of relevant data that, especially in triangulation with each other, offered us in-depth insights into the patterns and conceptions underlying (interactive) news media use across different spheres, contexts and devices, and allowed us to take into account the proposed reconceptualization of ‘media experience’.

Looking Ahead: With a Little Help from Technology

Where does all this leave media ethnography? Ethnography in communication studies has been strongly rooted in the anthropological and linguistic approach, where the focus lies in studying patterns of interactions and the way people identify with their socio-culturally situated community, domain or field via communication practices (Soukup, 2012: 4). Certainly, media ethnographers have come to terms with the postmodern blurring of cultural spheres and the role of mediation in that regard. Among others, the work of Hine (2000) has realized a methodological shift whereby ethnographers have come to accept the online context as a social space, a locus of social interactions and identity building and, consequently, (digital) ethnography has been acknowledged in the sense that ‘It is not always necessary to witness [people’s] everyday activities; to be “on site” and “in sight”’ (James and Busher, 2009: 33). This is also true for media: you do not need to be there to get an idea about how people experience media and traditional ethnographic methods, albeit adapted to gather data online, are suitable to be applied on the worldwide web.

Still, the adoption of ubiquitous, digital, online media practices seems to pose specific issues to the ethnographic methodology that go beyond the challenges posed by the online environment as such. Soukup puts it aptly when he states that while ethnography has historically emphasized ‘bounded’ spaces or cultures that inhabit a geographic place ... in a sense, mobile technology involves carrying our ‘place’ with us, or perhaps, a perpetual placelessness ... [rendering the cultural practices associated with it] largely an experience of brief fleeting moments without clear unity or sequence.

Indeed, the 'personal information spaces' Deuze speaks of are mobile, ephemeral and individual, even though online interactions may easily occur between such spaces. Media ethnographers are confronted with the 'disappearance' of their object of study. Dealing with people's changing ways of using media and consulting information may require ethnographers to devise or at least envision new data-gathering methods.

How to study volatile actions that are too ephemeral to be observed by researchers and too liquid to be recognized as actions – actions people can talk about – by participants? A whole range of interactions with and through media does not take place in the private context of the household or in the public context of an offline or online chat room. They happen 'in between': in between contexts, in between places, in between other activities. How then to elicit these practices? How to study the role media play in our everyday life and the meaning we give to these artefacts when the objects as such disappear from our consciousness? Is there a risk that when 'all becomes mediated', mediation becomes invisible, and hence not scrutinized?

This study is but one attempt to identify and tackle the impact of 'liquidity' on the ethnographic methodology. Paradoxically, the solution to the challenge posed by digital technologies to media ethnography might partly be found in those very same digital technologies. To a certain extent, we can turn to digital technologies when we look for data-gathering methods that can go even a step further in 'following' the user. As Sonia Livingstone (2007: 20) argues: 'while television reception escapes the researcher's gaze by occurring largely "in the heads" of its audience ... new media use is at least partially visible, for people must, necessarily, interact overtly (through selecting, clicking, scrolling and typing)'. The logging, tracking and processing of these data offers new methodological paths to be discovered.

Indeed, if certain elements of media use could be logged directly, these could serve as an extension of the diary-interviews proposed in this article. Automated logging of data can at the same time address the issues of accuracy of self-reported data, of burdening the respondents and of intervening all too directly in the natural setting in which media use takes place. Inspiration can be found in mobility studies, for example, the use of GPS to supplement traditional data elements collected in paper or electronic travel diaries (Iqbal and Lim, 2010); urban development studies, for example, the use of GPS tracking to picture commuter flows (Noam, 2008); or medical research, for example, linkage of the diary to automated sensors, such as seizure-detecting accelerometer watches (Kramer et al., 2011). Living Lab settings could certainly offer a framework for implementation of such automated data logging.

Of course, logging users' media practices has its own shortcomings. First of all, such methods might result in a data overload difficult to analyse meaningfully, especially for ethnographic researchers not necessarily disposing of the appropriate

advanced skills in quantitative analysis. Also the cost of devising such logging tools should not be underestimated. Although certain open-source initiatives are available, like the FUNF-tool developed by MIT, developing tools that can log media use over different devices and across different operating systems is challenging in terms of cost as well as compatibility. Finally, while this might be less intrusive and burdensome for participants, who would no longer need to complete diaries or questionnaires, it might be difficult to convince people to allow their whole media use to be logged over different devices. Privacy and data control issues come into play.

We follow Soukup (2012) in believing that ethnographers should not consider these cultural changes as an obstacle, but rather should embrace these transformations as unique opportunities of ethnographic enquiry, 'the juicy stuff'. Ethnography might exactly be the kind of methodological approach needed to make sense of these transformations. Whether a triangulation of methods like the semi-experimental digital ethnography proposed in this article, as well as the future perspectives presented above, can still be labelled as ethnographic research is then open for discussion. We follow boyd (2008: 47) who argues that 'Ethnographic methods are constantly evolving and even more frequently debated as researchers challenge once ubiquitous practices in response to fluctuating research norms and understandings.' Our belief is that media ethnography, and ethnography in general, will benefit from an open-mindedness that allows this valuable research methodology to face the challenges of the swiftly evolving media ecology. In any case, interesting times lie ahead for media ethnographers.

REFERENCES

- BAUMAN Z (2005) *Liquid Life*. Cambridge: Blackwell.
- BOEHNER K, Vertesi J, Sengers P and Dourish P (2007) How HCI interprets the probes. Paper presented at the Computer and Human Interaction conference, San Jose, California, 28 May–3 June.
- BOLGER N, Davis A and Rafaeli E (2003) Diary methods: capturing life as it is lived. *Annual Review of Psychology* 54: 579–616.
- BOYD DM (2008) *Taken Out of Context: American Teen Sociality in Networked Publics*. Doctoral thesis, University of California, Berkeley.
- BRUNS A (2008) *Blogs, Wikipedia, Second Life, and Beyond: From Production to Producers*. New York: Peter Lang.
- BURNETT R and Marshall PD (2003) *Web Theory: An Introduction*. New York: Routledge.
- CARTER S and Mankoff J (2005) When participants do the capturing: the role of media in diary studies. Paper presented at the SIGCHI Conference on Human Factors in Computing Systems Portland, Oregon, 2–7 April.
- CASTELLS M (2007) Communication, power and counter-power in the network society. *International Journal of Communication* 1: 238–266.
- COHEN DJ, Leviton LC, Isaacson N, Tallia AF and Crabtree BF (2006) Online diaries for qualitative evaluation: gaining real-time insights. *American Journal of Evaluation* 27(2): 163–184.
- COULDRY N, Livingstone S and Markhal T (2007) *Media Consumption and Public Engagement: Beyond the Presumption of Attention*. Basingstoke: Palgrave Macmillan.
- COURTOIS C, Mechant P, Paulussen S and De Marez L (2011) The triple articulation of media technologies in teenage media consumption. *New Media & Society*. doi: 10.1177/1461444811415046
- COURTOIS C, Verdegem P and De Marez L (2012) The triple articulation of media technologies in audiovisual media consumption. *Television & New Media*, available at: <http://tvn.sagepub.com/content/early/2012/04/11/1527476412439106>
doi:10.1177/1527476412439106
- DAHLGREN P (2009) *Media and Political Engagement: Citizens, Communication, and Democracy*. Cambridge: Cambridge University Press.

- DEUZE M (2007) *Media Work*. Cambridge: Polity Press.
- DEUZE M (2010) Survival of the mediated. *Journal of Cultural Science* 3(2): 1–11.
- DEUZE M (2011) Media life. *Media, Culture & Society* 33(1): 137–148.
- DEUZE M (2012) *Media Life*. Cambridge: Wiley.
- FITTON D, Cheverst K, Rouncefeld M, Dix A and Crabtree A (2004) Probing technology with technology probes. Paper presented at the Equator Workshop on Record and Replay Technologies, London, 12–13 February.
- FØLSTAD A (2008) Living labs for innovation and development of information and communication technology: a literature review. *Electronic Journal for Virtual Organizations and Networks* 10. Available at: eJOV10_SPILL7_Folstad_Living Labs for Innovation and Development.pdf (accessed October 2013).
- GAVER WW, Boucher A, Pennington S and Walker B (2004) Cultural probes and the value of uncertainty. *interactions* 11(5): 53–56.
- GOLDMAN-SEGALL R (1992) Collaborative virtual communities: using learning constellations, a multimedia ethnographic tool. In: Barret E (ed.) *Sociomedia, Multimedia, Hypermedia and the Social Construction of Knowledge*. Cambridge: MIT Press, pp. 257–296.
- HARTMANN M (2006) The triple articulation of ICTs: media as technological objects, symbolic environments and individual texts. In: Berker T, Hartmann M, Punie Y and Ward K (eds) *Domestication of Media and Technology*. Berkshire: Open University Press, pp. 80–102.
- HAY J (2001) Locating the televisual. *Television & New Media* 2(3): 205–234.
- HEMMINGS T, Crabtree A, Rodden T, Clarke K and Rouncefield M (2002) Probing the probes. Paper presented at the 2002 Participatory Design Conference, Malmö, Sweden, pp. 23–25.
- HINE C (2000) *Virtual Ethnography*. Thousand Oaks, CA: Sage.
- HINE C (ed.) (2005) *Virtual Methods: Issues in Social Research on the Internet*. New York: Berg.
- HUTCHINSON H, Mackay W, Westerlund B, Bederson BB, Druin A, Plaisant C et al. (2003) Technology probes: inspiring design for and with families. Paper presented at the SIGCHI conference on 'Human Factors in Computing Systems', Fort Lauderdale, FL, 5–10 April.

- IQBAL MU and Lim S (2010) Privacy implications of automated GPS tracking and profiling. *Technology and Society Magazine* 29(2): 39–46.
- JACOBS A and Van den Broeck W (2008) Validation of auto-collective research methods: diary method (pp. 23): IBBT-SMIT, Vrije Universiteit Brussel.
- JAMES N and Busher H (2009) *Online Interviewing*. London: Sage.
- JOHNSON J and Bytheway B (2001) An evaluation of the use of diaries in a study of medication in later life. *Social Research Methodology* 4(3): 183–204.
- KOLLER M and Sinitza E (2009) Mixed methods in online research – conceptualisation and future research agenda. Paper presented at the General Online Research 09 Conference, Wenen, Oostenrijk, 6–8 July.
- KOZINETS RV (1998) On netnography: initial reflections on consumer research investigations of cyberculture. In: Alba J and Hutchinson W (eds) *Advances in Consumer Research* 25: 366–371.
- KRAMER U, Kipervasser S, Shlitner A and Kuzniecky R (2011) A novel portable seizure detection alarm system: preliminary results. *Journal of Clinical Neurophysiology* 28: 36–38.
- LAU RWH, Klamma R, Chen S-C and Wah B (2011) Advances in ubiquitous media technologies and applications. *World Wide Web* 14(3): 217–222.
- LAURENCEAU J-P and Bolger N (2005) Using diary methods to study marital and family processes. *Journal of Family Psychology* 19(1): 86–97.
- LIEVENS B, Torben Nielsen K, Pierson J and Jacobs A (2008) Proxy technology assessment as a multi-method approach for identifying social requirements of co-creative media. Paper presented at the NORDICHI 2008 conference, Lund, Sweden, 20–22 October.
- LIEVENS B, Van Den Broeck W and Pierson J (2006) The mobile digital newspaper: embedding the news consumer in technology development by means of living lab research. Paper presented at the IAMCR Conference, Cairo, 23–28 July.
- LINDLOF TR (1996) No more secrets: a retrospective essay on Joshua Meyrowitz's *No Sense of Place*. *Journal of Broadcasting & Electronic Media* 40(3): 589–596.
- LIST D (2004) Maximum variation sampling for surveys and consensus groups. Available at: <http://www.audiencedialogue.org/maxvar.html> (accessed 28 April 2009).
- LISTER M, Dovey J, Giddings S, Grant I and Kelly K (2003) *New Media: A Critical Introduction*. London: Routledge.

LIVINGSTONE S (2007) On the material and the symbolic: Silverstone's double articulation of research traditions in new media studies. *New Media & Society* 9(1): 16–24.

LULL J (1980) The social uses of television. *Human Communication Research* 6(3): 197–209.

MASTEN D and Plowman TMP (2003) Digital ethnography: the next wave in understanding the consumer experience. *Design Management Journal* 14(2): 75–81.

MORLEY D (1988) *Family Television: Cultural Power and Domestic Leisure*, 2nd edn. London: Routledge.

MORLEY D and Silverstone R (1990) Domestic communication – technologies and meanings. *Media, Culture & Society* 12(1): 31–55.

MURTHY D (2008) Digital ethnography: an examination of the use of new technologies for social research. *Sociology* 42(5): 837–855.

NGUYEN A (2008) *The Penetration of Online News: Past, Present and Future*. Saarbrücken: Verlag Dr. Müller.

NOAM S (2008) Tracking technologies and urban analysis. *Cities* 25(1): 21–28.

PATTON MQ (1980) *Qualitative Evaluation Methods*. Beverly Hills, CA: Sage.

PICONE I (2008) Conceptualising online news use. In: Pierson J, Mante-Meijer E, Loos E and Sapio B (eds) *Innovating For and By Users*. Luxembourg: OOEPEC, pp. 145–157.

PICONE I (2010) *Iedereen journalist? Het raadplegen, delen, beoordelen en beargumenteren van gebruikersgegenereerd nieuws. Een digitale experimentele etnografie naar evoluerende praktijken inzake nieuws bij Vlaamse nieuwsgebruikers* (Everyone a journalist? Consulting, sharing, rating and commenting on user generated news. A digital experimental ethnography on the evolving news practices among Flemish news users), PhD thesis, Vrije Universiteit Brussel, Brussels.

PICONE I (2011) Prodsage as a form of self-publication: a qualitative study of casual news produsage. *New Review of Hypermedia and Multimedia* 17(1): 99–120.

PIERSON J, Lievens B and Ballon P (2005) Configuring living labs for a 'thick' understanding of innovation. Paper presented at the Ethnographic Praxis in Industry Conference, Redmond, WA, 14–15 November.

PIERSON J, Jacobs A, Dreesen K, Van den Broeck I, Lievens B and Van den Broeck W (2006) Walking the interface: uncovering practices through 'proxy technology assessment'. Paper presented at the EPIC Conference, Portland, OR, 24–26 September.

- PODNAR I, Hauswirth M and Jazayeri M (2002) Mobile push: delivering content to mobile users. In: *Proceedings of the International Workshop on Distributed Event-based Systems*. Vienna, pp. 563–570.
- POLKINGHORNE DE (2005) Language and meaning: data collection in qualitative research. *Journal of Counseling Psychology* 52(2): 137–145.
- RADER M and Boehle K (2008) Annual monitoring synthesis report. In: Abadie F, Maghiros I and Pascu C (eds) *European Perspectives on the Information Society: Annual Monitoring Synthesis and Emerging Trends Updates*. Luxembourg: Office for Official Publications of the European Communities, pp. 7–142.
- RATTO M (2000) Producing users, using producers. Paper presented at the Participatory Design Conference, New York, 28 November.
- SILVERSTONE R, Hirsch E and Morley D (1992) Information and communication technologies and the moral economy of the household. In: Silverstone R and Hirsch E (eds) *Consuming Technologies: Media and Information in Domestic Spaces*. London: Routledge, pp. 15–31.
- SOUKUP C (2012) The postmodern ethnographic flâneur and the study of hyper-mediated everyday life. *Journal of Contemporary Ethnography* 42(2): 226–254.
- STÅHLBRÖST A and Bergvall-Kåreborn B (2008) Constructing representations of users needs – a Living Lab approach. In: Asproth V (ed.) *Proceedings of the 31th Information Systems Research Seminar in Scandinavia: Public Systems in the Future: Possibilities, Challenges and Pitfalls*. Åre, Sweden: IRIS.
- STOPKA TJ, Springer KW, Khoshnood K, Shaw S and Singer M (2004) Writing about risk: use of daily diaries in understanding drug-user risk behaviors. *Aids and Behavior* 8(1): 73–85.
- SUCHMAN LA (1987) *Plans and Situated Actions: The Problem of Human–Machine Communication*. Cambridge: Cambridge University Press.
- TOMS EG and Duff W (2002) ‘I spent one and a half hours sifting through one large box ...’ Diaries as information behavior of the archives user: lessons learned. *Journal of the American Society for Information Science and Technology* 53(14): 1232–1238.
- TORBEN NIELSEN K, Jacobs A, Lievens B and Pierson J (2008) Faking the real thing? Proxy technology assessment as a method for participative design. Paper presented at the Participatory Design Conference, Bloomington, USA, 1–4 October.
- URRY J (2007) *Mobilities*. London: Polity.

WARD K (1999) Cyber-ethnography and the emergence of the virtually new community. *Journal of Information Technology* 14: 95–105.