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NETWORKS AND PLACE – A STUDY OF ONLINE ACTIVITIES IN TWO FOCUS GROUPS

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The study comprises an analysis of two focus groups and their engagement in various activities with their networks. The interest arises from the observation that learning in classrooms seldom utilises the broad variety of the pupils' expertise in problem-solving and interaction in a variety of intertwining networks, in multimodal, technology-mediated environments. Recent research understands place as a social construct, not as a concrete location. From this perspective, it is essential to examine what it is that makes a 'virtual place' and what is going on there. Capturing the activities and interactions in these environments and understanding their nature requires long-term research. The first data set comes from a focus group of Sign Language users, and the second from participants of an Internet Relay Chat (IRC) channel. The multimodal data were collected over a relatively long period of time, and include media diaries, logdata, screenshots and discussions.

Keywords: mediated discourse, multimodal discourse, networks, social action, place, space

1 INTRODUCTION

This paper introduces a study which comprises analysis of two focus groups. The term 'focus group', unlike within the interview practice widespread in social research, refers here to the study of people whose actions and interactions we are observing, and their engagement in various activities within their peer networks. This is one of several case studies within a research project (*MAILL – Multimodal Action and Interaction in Networked Learning and Work*[1]), which has a broad interest in learning and language learning, not only within but also outside formal learning situations. The research interest arises from the observation that learning in classrooms seldom utilises the broad variety of the pupils' expertise in problem-solving and interaction in a variety of intertwining connections and contact points between people ('networks') in multimodal, technology-mediated environments. Capturing the activities and interactions in these environments and understanding their nature requires long-term qualitative research. For this purpose, we are utilising 'nexus analysis' as our broad methodological framework (e.g., Scollon 1998, 2001; Scollon & Scollon 2003, 2004).

In our analysis, we take the first step in the procedure of nexus analysis, i.e. 'engaging' a network of linked practices ('the nexus of practice') (Scollon 2001: 147; Scollon & Scollon 2004: 153). This entails looking for actions and participants, central to the issues and problems under consideration. The study will later lead to a more in-depth 'navigating' stage, i.e. the "mapping of the semiotic cycles of people, discourses, places, and mediational means involved in the social actions we are studying" (Scollon & Scollon 2004: viii). The final stage of nexus analysis involves 'changing' the nexus of practice (Scollon & Scollon 2004: 139).

The first of the two multimodal data sets was collected among a group of Sign Language users between the years 2004 and

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1   http://www.ekl.oulu.fi/MAILL/

2006. The second set was gathered over six months in 2006 from participants in an Internet Relay Chat (IRC) channel (#watchdog). The nature of the data will be clarified in more detail in connection with the analyses. According to the methodological framework of Mediated Discourse Analysis, the researcher is not supposed to hide his/her position. Rather, the researcher needs to be acknowledged by the researched as a legitimate member of the community and involve them in the study process as well (Scollon & Scollon 2004). Ethical questions concerning the anonymity of the researched in this study have been considered carefully (Kuula 2006).

The broad research questions for this paper are concerned with what is going on among the focus groups, who the participants are, what kinds of networks and practices they are engaging in, what kinds of spaces and places they construct for their interactions and how all this might relate to learning. The theoretical framework below provides a broad basis for locating the phenomena which it might be interesting to examine in the next phase of the study. The division of labour between the authors of the paper is as follows: Elina McCambridge is responsible for collecting and analysing the first set of data (Section 3) and Leena Kuure for the second (Section 4). The authors have elaborated the theoretical and methodological background as well as the conclusion jointly.

2   THE INTERCONNECTEDNESS OF 'PLACE' AND 'IDENTITY'

In our research, we have been interested in capturing a view of the networks, actions and interactions that our focus group informants are involved with, crossing the physical borders of the home and school. Such crossing and networking takes place through a range of Internet-based messaging systems and virtual environments (e.g., chat rooms and photo galleries). Therefore, notions such as 'place', 'space', 'connectivity', 'interaction', 'membersip', 'identity' and 'multimodality', among others, become relevant. Scollon (2003:

210), in fact, writes about a spatial turn in research, whereby place is now becoming more highlighted in general. We may ask what kinds of processes construct the place, what it is that makes a 'virtual place' and what is going on there (Cresswell 2004: 29; Harvey 1996: 261). In fact, most recent research understands place as a social construct, not as a concrete location. As Cresswell (2004) points out, places are never complete and finished. Instead, they are constantly being performed, i.e., they are always in progress. People negotiate a place, and the way in which a sense of place is developed, through the interaction of structure and agency. Place, thus, needs to be understood as an embodied relationship with the world (Cresswell 2004: 37).

Places can be seen as merging with each other. 'Articulators' or 'localizers', in Latour's (2005: 192–193) terminology, refer to the presence of certain places as transported into others. Scollon and Scollon's (2003: 175–176) notion of 'semiotic aggregate' also refers to the many discourses which fall together in a single place (e.g., a shopping area). Jones (2004: 25), likewise, points out that we should see situations as "made up of layers of various realities overlapping and interacting with one another" (see also Hine 2000: 116). Scollon and Scollon's (2004: 50) discussion about the nature of a technology-mediated university class gives a further example on how the 'primary' interactions, among physically co-present participants, and 'secondary' (mediated) interactions and discourses intertwine in complex ways. People very rarely concentrate on one action at a time. Rather, their practices are characterised by 'polyfocality' (Jones 2004: 26–28) and 'multimodality' (Norris 2002, 2004; Kress 2000, 2003; Kress & van Leeuwen 2001). The communicative modes in interaction (e.g., spoken language, proxemics, posture, gesture, gaze, music, print and layout) play together in interaction (Norris 2004: 15–51). How this comes about in computer-mediated communication is still a relatively unexplored field, especially in terms of long-term focus group research of the present kind from a nexus-analytic point of view.

Cresswell (2004: 39) suggests that place is the raw material for the creative production of identity, rather than an *a priori* label of identity. Place provides the conditions of possibility for creative social practice. Massey (1997), as cited in Cresswell (2004: 74), regards place as a site of multiple identities and histories, made unique and defined by its interactions. People place themselves into a place according to various cultural rules and norms. It seems that not only do **people make spaces**, but also **spaces make people**, by constraining them but also by offering opportunities for identity construction. (Cresswell 1996; Relph 1976 and Tuan 1977 as cited in Benwell & Stokoe 2006: 211; see also Gibson 1977 and 1979 for the notion of 'affordances').

3 THE FIRST FOCUS GROUP: FINNISH SIGN LANGUAGE USERS[2]

In the following, the findings from the analysis of the first set of data for this study are presented. The focus group in question has been selected from Finnish Sign Language users.

3.1 DATA

The first set of data was collected among the focus group of Finnish Sign Language users during the years 2004 to 2006. In this study, the primary data is from the four-day media diary of one participant of the focus group, Tommi[3]. This diary consists of a video diary, screenshots, Internet links, MSN Live Messenger conversations and observations. Through the media diary, the focus extends from

2 The majority of the focus group members are native Finnish sign language speakers. Two are native speakers of Finnish, but use Sign Language at school and are very fluent signers.

3 Names and nicknames have been changed and the pictures heavily modified in order to guarantee the informants' anonymity. The pictures that are shown are presented with the permission the of the informant (who is over 18 years of age).

Tommi to his online networks. Examining Tommi's media diary magnified what others in the focus group do in online networks. The secondary data consist of observations, interviews and the multimodal data collected during the *Me & Languages Research Project*, conducted together with the pupils in the focus group.

Tommi lives in the school dormitory during school week, where he has access to the Internet, but he does not use this connection regularly. In the video diary, Tommi described how his Internet surfing takes place mostly at his friend's home. Other places where Tommi uses a computer to access the web include the school's computer laboratory, his home, and his friends' and older siblings' homes. Tommi and his two friends take turns on the computer, chat, watch TV and share Messenger contacts. They comment to each other online in an asynchronous environment, IRC-Galleria, when the same individuals are actually present in the room. Surfing the Internet is in many ways a shared activity.

The next section will introduce the two online networks Tommi engaged in according to his media diary: IRC-Galleria and Windows Live Messenger. The question asked when examining the online environments was: what kind of action and interaction does each place make possible?

I will also describe the kinds of communicative modes used in each forum. The affordances in each place are introduced and some preliminary analysis on the interaction in IRC-Galleria and Messenger will be carried out. However, deeper analysis of how the multimodal affordances are used in online interaction will be carried out in the future. Finally, I will examine how the networks and places seem to intertwine in Tommi's life.

3.2 IRC-GALLERIA

IRC-Galleria (www.irc-galleria.net) is the largest web-based Finnish virtual community. An estimated 65 % of Finnish people aged between 15 and 17 are users of IRC-Galleria. At its most basic, it is a photo gallery – a user account requires at least one accepted

image. IRC-Galleria users communicate through short messages, each of which is associated with either a picture or a community. Each user can be a member of at most 40 communities. Registered members can join different communities, which are then listed in their profile. Members can also start new communities and they communicate with each other in messages that are either sent to the community front page or to individuals' galleries. The comments are only visible to those who are logged in to the service. There is no chat or other instant messaging option in IRC-Galleria. When logged in, you can see who is logged in at the same time. Individuals' profiles also show the last time that person was logged in to the service.

The pictures in member galleries, quite rarely traditional posed pictures, are skilfully modified. One goal in IRC-Galleria is to become known for one's high standard of pictures: the pictures are commented on and admired. A member is also able to modify his/her personal gallery and make the pages look more like individual homepages with animations, colours and images. IRC-Galleria constantly adds new features for its members to use. The updates are inspired by members' requests and feedback.

3.3   WINDOWS LIVE MESSENGER

Windows Live Messenger is a free instant messaging client developed by Microsoft. It was formerly called 'MSN Messenger', and it is still commonly referred to in this way, or as 'MSN' or 'Mese' in Finnish. Instant messaging is a form of real-time communication between two or more people based on typed text. Messenger indicates whether people on one's contact list are currently online and available to chat. All parties in the conversation see each line of text immediately after the writer writes and sends the message. At the time of the video diary (May 2006), Tommi was using the first version of Windows Live Messenger. The most essential features at that time were: 1) instant messaging, 2) sending and receiving documents (music, Word documents, pictures, etc.), 3) smileys and

animations, 4) videoconferencing, 5) group discussion, 6) avatars (icons) – the graphical representation of an Internet user, 7) the ability to choose a colour scheme and a background picture for the conversation windows and to share them with a contact, 8) the ability to choose a nickname and to set a status message, 9) the ability to display a personal message showing, for instance, what music is being played in Windows Media Player, and 10) the the ability to share folders.

3.4   TOMMI IN IRC-GALLERIA

Tommi is an active member of IRC-Galleria (Figure 1), as are most of his Deaf peers in the focus group. At the time of the media diary, he was a member of the community of "Sign Language users", and six other communities, such as "Movies" and "Sleeping is fun". In "Sign Language users" there were many peers from his school, his hometown, and from the local Deaf community. He conversed actively with those from the same school. He visited IRC-Galleria and made new entries every day that week. He also added some new pictures, probably taken with the camera he had borrowed for keeping the video diary. His discussions within IRC-Galleria consisted of short phrases. No long discussions were found.

FIGURE 1.   Tommi's gallery in IRC-Galleria.

It is rather difficult to follow the conversations in IRC-Galleria because the dialogue is scattered across several pages. The dialogue between two people is not seen in one window (as it is, for example, in Windows Live Messenger) because each member receives the comments from other people under his/her own pictures, and their replies go to the recipient's gallery. Usually the dialogues are asynchronous, in which case one person leaves a message under somebody's picture and the recipient sees the message when he/she logs in. However, the case of asynchronous versus synchronous conversation is not that obvious. For example, under one picture the message list can look like the one in example 1 (a rough translation into English is included in parentheses):

(1) 1 15.05.06 18.54 <richy> mul hyvin :) ((I'm fine :)))
    2 15.05.06 20:19 <richy> olin kotona :) sä? ((I was at home :) you?))
    3 15.05.06 20:19 <richy> ootko sä saksas? ((are you in germany?))
    4 15.05.06 20:24 <richy> mikset? :S ((why not? :S))
    5 15.05.06 20:26 <richy> ok.. mihin opiskelemaan meet? ((ok.. where are you going to study?))
        (6 lines cut away)
    6 16.05.06 13:02 <Electric^^> No morjens!!! Mitäs kuuluu??? ☺ ((Well, hi!!! What's up??? ☺))
    7 21.05.06 07:59 <[blue]cat*> xD Mitä sä. ((xD What about you.))
    8 23.05.06 09:51 <[blue]cat*> xD olen mää okei. ((xD I'm ok.))

When one pays attention to the time tags at the beginning of each line, one notices that there is a synchronous discussion going on in lines 2–5, since the participants are logged in at the same time and receive messages instantly. The situation is the same as it could be in an instant messenger, but the comments are distributed in two or more places. What Tommi has written in reply to richy is only seen in richy's gallery.

On the other hand, the time tags reveal that the short dialogue starting in line 6, *'No morjens!!!'* ("Well, hi!!!") with [blue]cat* took place on two separate days, which makes this short "What's up? – I'm ok!" exchange asynchronous conversation. What is

interesting is the combined synchronous versus asynchronous nature of the place and how the comments are adapted to this.

The members do not seem to aim at keeping the past conversations logically arranged under one or two pictures. It also seems to be unimportant to make the context transparent for readers who may read the conversations later on. For example, one is likely to see phrases such as "Yep, let's meet there one hour later" instead of "Yep, let's meet at Star Cafe at 5 instead of 4 o'clock".

It would be interesting to examine in more detail how often the context is opened up for the reader, and how often the comments are heavily coded so that they can be understood only by the person to whom they are sent.

3.5   TOMMI AND WINDOWS LIVE MESSENGER

At the time of his video diary, Tommi had 54 contacts in MSN Messenger (Figure 2). He chats in Finnish even with other Sign Language users, although Finnish is clearly his second language. From the contacts in the screenshot he gave me, I identified many local Deaf and even some from the same school.
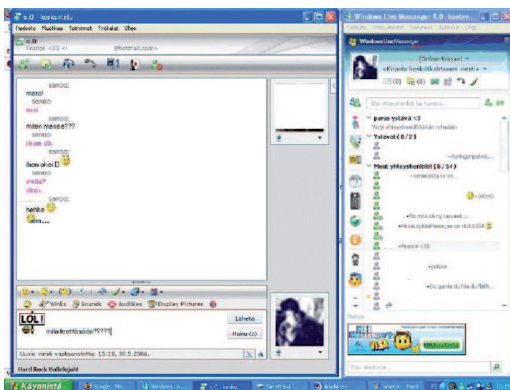

FIGURE 2.   Tommi's message window and the contact list in Windows Live Messenger.

Screenshots of ongoing Messenger conversations revealed the complexity of the practice. Of the 54 contacts, eight were online. The information available on each contact included online status, nickname, personal message, picture, and the customised background of the conversation window. He had customised the colour scheme, fonts and background theme. A conversation in progress consisted of a picture or webcam picture, text, smileys, animations, sent files, and links.

3.6   THE PLACES AND NETWORKS INTERTWINE

It is usual that nicknames in the data vary from place to place, but this is not done for the sake of anonymity. People do not try to have different 'personalities' or separate the places from each other, but present pictures of themselves and, for example, talk in IRC-Galleria about school and the people there, using their real names.

Tommi's way of doing things show very well how these different networks overlap and how he is present in different places, yet performing different actions in each place: while he is at his friend's place, he is logged into IRC-Galleria. There he adds new pictures of himself to his personal photo gallery, reads messages from other gallery users, and replies to them. At the same time, he keeps Messenger open, and talks with people who are on his contact list. Very often they are the same people he sees at school, and in IRC-Galleria. The screenshot (Figure 2) shows that Tommi has several windows open because he is probably doing other things at the same time, for example modifying his picture, adding screenshots to his Word document and so on. When going through his media diary, it is obvious that being in contact with the same people in different places and using different communicative modes (depending on the nature of the place) is a highly structured and demanding activity that maintains complicated, overlapping contact keeping.

4 FOCUS GROUP TWO: THE INTERNET RELAY CHAT CHANNEL

In the following, the findings from the analysis of the second set of data for this study are presented. The data come from an IRC channel which is primarily used by members of a single family.

4.1 DATA

The data from the second focus group have been gathered from the home of a family and the mother's workplace on a long-term basis. This case research was launched in 2002 at the family home by collecting information on the life of the son aged 18, spending time at the computer. Later, the perspective was extended to the other children in the family and the workplace of the mother, as she had become a member of the same small IRC community as the children (the channel called #watchdog). For this particular paper, an IRC log from a six-month period from #watchdog was selected for closer scrutiny. The log file was stored automatically on the computer, by selecting an option to do so in the client software (*mIRC*). In addition, the data include participant observer information concerning conditions and situations both at the mother's workplace and at home. There are also screenshot data and Messenger log files stored on the computer, and video data from home. Ethical aspects have been considered carefully during the study (see introduction). The nicknames and real names of the participants have also been changed.

The logfile of the channel comprises 67 sessions in total over a period of six months between April and October in 2006. The regular particpants in the family channel #watchdog were the mother, MKuu (at her workplace), the 22-year-old son Blandare (at home, in his own room), the 17-year-old brother, Komaatti (or 'Ville', at home, in his own room) and the 25-year-old sister, K-ma (at her home, in the student residence), as well as the occasional visitors Janne (K-ma's spouse using her nickname) and Blandare's

Internet-friends Babybunny and Koomanooma. One of MKuu's colleagues, MinnaLoo, also visited the channel at some point.

4.2   THREE FOCAL AREAS OF ACTIVITY

In the IRC discussions at least three focal areas of activity emerged: 1) task-oriented activity (problem-solving and organisation work), 2) community-oriented activity (maintenance and borders) and 3) learning-oriented activity (apprenticeship towards community membership). These areas obviously intertwine in the message exchange.

In the case of task-oriented activity, MKuu typically asks for help in technical matters. Blandare acts here as a key person either by directly providing his own expertise or by recruiting people from his other IRC channels as a resource in solving problems. Such activity may require simultaneous use of several other communicative channels. Part of the task-oriented activity is not actual problem-solving but simple requests for help in practical matters. These are usually directed from the children to MKuu (e.g., K-ma asks for permission to use the family car or Komaatti asks for Coke to be added to the shopping list). Such an exchange is illustrated in example 2.

(2) 1   \<MKuu\> Blandare
    2   \<MKuu\> any requests concerning shopping what sort of
        goodies can we get
    3   for celebrating your birthday?
    4   \<Blandare\> MKuu
    5   \<MKuu\> yep
    6   \<Blandare\> cola ^-^
    7   \<MKuu\> always
    8   \<MKuu\> anything else?
    9   \<Blandare\> welllll
    10 \<Blandare\> pernod
    11 \<MKuu\> hmm :)
    12 \<Blandare\> I dunno [orig. en mie tiiä] brainstorm the rest
        yourself
    13 \<MKuu\> porridge

14 <Blandare> call ville and ask him
15 <MKuu> where is ville
16 <Blandare> next room
17 <MKuu> in fact I have a messenger connection with him :)
18 <Blandare> k
19 <MKuu> now I'll leave for the bus
20 <MKuu>byebye¨
21 * Disconnected
22 Session Close: Fri Apr 07 18:34:36 2006

The example is typical in the data. At the beginning, before the passage cited MKuu thanks Blandare for the help he has given in installing the mIRC-instant messaging system on MKuu's computer at work. The rest of the message deals with family matters, in this case a shopping list. This kind of general organisatory troubleshooting or negotiation for practical tasks takes place in the messages on a regular basis. The example also displays the second type of focal area in the activities, i.e. "community work". The expression *en mie tiiä* (*I dunno*) on line 12 is not part of Blandare's regular language usage, but is likely to be drawn from the eastern Finnish language repertoire of babybunny, an IRC friend from other channels, who will later pop in to visit #watchdog briefly (see example 3). The example thus shows the intertwining of networks and their gatekeeping or border-watching practices. From Blandare's point of view babybunny is visible in one of his other active channels. For MKuu and others the discussion only gives implications of this presence.

The same extract provides a further example of the blurring of the actual location of the participants, while the Internet allows presence in a range of other locations simultaneously. Blandare asks MKuu to phone his little brother Ville to clarify the requests for the shopping list (line 14). MKuu asks where he is, and it it is revealed that Ville is in fact at home as well, sitting on the other side of Blandare's wall in his own room (line 16). Furthermore, the mother (MKuu) and Ville are communicating with each other through Messenger (line 17).

At the end of the six-month observation period, a lot of negotiation arises among the children in problem-solving interaction, when Komaatti (Ville) installs the *mIRC* client on his computer and becomes included in the same group as the others on #watchdog. This negotiation is brought about when his sister and brother help him, not only in technical matters, but also in conforming to the rules of conduct in the IRC community. Community-oriented activity is visible not only in the talk in relation to the IRC community etiquette, but also in relation to maintaining that community and defining its borders. In the following example, a quick visit by an outsider to the channel (babybunny) causes similar negotiation on the identity of the visitor and the boundaries of the community (lines 3-).

(3) 1 <K-ma> You can remove that if you want to
    2 <Mkuu> okay
    3 * babybunny has joined #watchdog
    4 <K-ma> That's what it is
    5 * babybunny has quit IRC (""-)
    6 <Blandare> :D
    7 <Mkuu> babybunnnyyyy little bunnyyyyy
    8 <K-ma> What the heck :D
    9 <Mkuu> what – now this is getting weird
    10 <Mkuu> well didn't you see how babybunny has joined and has left and then blandare does :D
    11 <K-ma> Yeah yeah, I was actually wondering who babybunny is
    12 <K-ma> XD
    13 <Mkuu> well did you check the [--]

Occasionally, other activities appear, such as joke-telling, experience-sharing (e.g., through exchanging links) and language play. Identity work is also done in the community. MKuu, for example, at times participates in the activities in times in the roles or positions of the mother, a teacher or a colleague. If one thinks of #watchdog as a community, its membership and activities have clearly changed over the year. Naming is an important practice in community work. Watchdog was originally a "pet name" given to the mother by Blandare. In autumn 2005, the members of

#watchdog were primarily made of MKuu's colleagues, although the channel was originally started in order to establish an instant messaging connection between Blandare and MKuu. It was an exciting experience for her because suddenly the home community and the working community became absorbed into each other. Her son was allowed to access the work environment and her colleague to access the family environment. Since spring 2006, #watchdog has become primarily a family channel (except for the father who does not use IRC).

5   DISCUSSION AND CONCLUSION

The broad research questions of this study were concerned with what is going on among the focus groups, who the participants are, what kinds of networks and practices they are engaging in, what kinds of spaces and places they construct for their interactions and how all this might relate to learning. The nature of the study was exploratory, representing the first step in a nexus analysis of a long-term project. Therefore, the background theory was used as a starting point for mapping out the domains in which different people move and create networks with others, and what is going on in these 'communities' and 'places'.

The results of the study through the two data sets show the complexity of the interactional situations among the participants. There is a variety of activites going on in the focus groups. The practices are not separate: they intertwine with each other from situation to situation. In Scollon and Scollon's (2003: 175) terms we can talk about semiotic aggregates (see Section 2) in which several discourses fall together. The participants may be engaged in 'multitasking', or 'polyfocal' activity in community building and maintenance, apprenticing newcomers and networked problem-solving.

When taking part in these activities, the focus group members switch between networks and places. As the Internet allows

presence in a range of 'places' and connections between different networks simultaneously, this changes the set-up for the possible participation frameworks. Thus, our assumptions of 'where' people are at a given moment are challenged. The limits of home, workplace and other concrete locations are expanded and mixed, as was seen in the analysis of the #watchdog channel and the focus group of Sign Language users. The domains of home and workplace, in other words, pervade each other. The two #watchdog members, for example, distributed tasks beween themselves over the Internet, despite the fact that they were physically close to each other. Tommi, in the Sign Language group, communicated via Messenger with the friend sitting beside him. Furthermore, our perceptions of synchrony and asynchrony of messaging may need re-evaluation on the basis of the observations of the interactions between the participants in IRC-Galleria.

Obviously, such switching between communicative modes and virtual and physical interactions is done for a reason, as the choices make different participation frameworks possible. As Tommi's media diary indicates, such practices are highly structured and demanding activities that allow complicated, overlapping contact-keeping with a range of peers. The interaction configurations are complex, and are rearranged from situation to situation depending on the focus of the activity in progress.

The resources available in the Internet environment provide a range of visual media for identity work. In IRC-Galleria, for example, the participants put effort into photography and photo-editing when putting themselves on display in their own photo galleries. In Messenger, there are several other options to modify the interface. The aim is not necessarily anonymity, despite the nicknames, but, rather, full participation in peer networks.

From the point of view of learning, the study challenged many assumptions about the nature of interactions and activities accomplished through the Internet, and brought to the fore several interesting issues for further exploration. Informal learning practices that take place outside the formal settings of education,

often between peers, through networks of different kinds, seem to be efficient and more varied than we often assume. This study will lead to further research, which will provide more detailed information on the issues and their significance for language teaching.

REFERENCES

Benwell, B. & E. Stokoe 2006. *Discourse and identity.* Edinburgh: Edinburgh University Press.

Cresswell, T. 1996. *In place/out of place. Geography, ideology and transgression*. Minneapolis, MN: University of Minnesota Press.

Creswell, T. 2004. *Place. A short introduction.* Oxford: Blackwell.

Gibson, J.J. 1977. The theory of affordances. In R. Shaw & J. Bransford (eds.) *Perceiving, acting, and knowing,* Hillsdale, NJ: Lawrence Erlbaum, 67–82.

Gibson, J.J. 1979. *The ecological approach to visual perception*. Hillsdale, NJ: Lawrence Erlbaum.

Harvey, D. 1996. *Justice, nature and the geography of difference*. Cambridge, MA: Blackwell.

Hine, C. 2000. *Virtual ethnography*. London: Sage.

Jones, R. 2004. The problem of context in computer mediated communication. In P. Levine & R. Scollon (eds.) *Discourse and technology. Multimodal discourse analysis*. Washington, DC: Georgetown University Press, 20–33.

Kress, G. 2000. Multimodality. In B. Cope and M. Kalantzis (eds.) *Multiliteracies. Literacy learning and the design of social futures.* London: Routledge, 182–202.

Kress, G. 2003. *Literacy in the new media age.* London: Routledge.

Kress, G. & T. van Leeuwen 2001. *Multimodal discourse*. London: Arnold.

Kuula, A. 2006. *Tutkimusetiikka – aineistojen hankinta, käyttö ja säilytys.* Tampere: Vastapaino.

Latour, B. 2005. *Reassembling the Social. An introduction to actor-network theory*. Oxford: Oxford University Press.

Massey, D. 1997. A global sense of place. In T. Barnes & D. Gregory (eds.) *Reading human geography*. London: Arnold, 315–323.

Norris, S. 2002. The Implication of visual research for discourse analysis: transcription beyond language. *Visual Communication,* 1 (1), 97–121.

Norris, S. 2004. *Analyzing multimodal interaction: a methodological framework*. London: Routledge.

Relph, E. 1976. *Place and placelessness.* London: Pion.

Scollon, R. 1998. *Mediated discourse as social interaction. A study of news discourse.* London: Longman.

Scollon, R. 2001. *Mediated discourse. The nexus of practice.* London: Routledge.

Scollon, R. & S.W. Scollon 2003. *Discourses in place. Language in the material world.* London: Routledge.

Scollon, R. & S.W. Scollon 2004. *Nexus analysis. Discourse and the emerging internet.* London: Routledge.

Tuan, Y. F. 1977. *Space and place. The perspective of experience.* Minneapolis, MN: University of Minnesota Press.