Interaction Order of Mobile Multimedia 2.0

Ilpo Koskinen
University of Art and Design Helsinki
ilpo.koskinen (at) taik.fi

Esko Kurvinen
Elisa Ltd.
esko.kurvinen (at) elisa.fi

Abstract

This paper studies the current environment of mobile multimedia from an interaction-oriented standpoint. Since about 2006, mobile multimedia has been integrated to Web 2.0, significantly changing its pattern of distribution. While messages were previously viewed on the screen of the phone, or sent to another phone, today many people post them routinely to the Web. The change to "mobile multimedia 2.0" has been interpreted by some as a radical change, while others stress that people still by and large communicate with their friends and acquaintances. This paper analyzes actual forms of interaction on the Web to evaluate how people interact with mobile multimedia content.

1. Introduction

This paper looks at some of the most recent developments of mobile multimedia. Mobile multimedia first saw daylight in Japan around 2001, and next in Europe around 2002, when phones equipped with a camera came to the market. Although camera phones have been a major success for hardware manufacturers – more than 40% of all phones sold today have an in-built camera – mobile multimedia has been slow to catch up. According to the best estimates, people send only about 1 multimedia messages (i.e. messages with text, picture, video, and possibly sound) to every thousand text messages (Ling, personal communication, 2006, quoted in Koskinen 2008). Many other, derivative technologies seem to face a similar prospect. For example, although mobile television has been launched several times, and major media companies have pushed television to mobile phones, it has not caught on (Koskinen 2008). Similar story can be told about games in mobile phones. They are a far cry from the most successful online games, not to mention games on the PC and consoles.

Where does this picture leave us? Are we facing yet another case of overblown expectations regarding modern ICT technology, or is there something we should pay attention to happening, but in areas we do not normally pay much attention to.

Recent research points out one lead worth a closer look. In an editorial to a recent compilation of papers about camera phones and Web 2.0, Hjort (2009) has noted that

...the marriage between mobile media and Web 2.0 promises more — the portal to new arising forms of distribution such as MySpace, Xiaonei, Facebook, Cyworld mini-hompy, and YouTube. In this relationship, we are faced with a far from harmonious setting; if we are to understand anything about this phenomenon it is only through the negotiation of the local that we can fully understand the complexity of these emerging forms of community, creativity and authorship in an age of full-time public intimacy... Camera phone practices amplify the local, highlighting the divergent ways in which public, private and the personal are being reconfigured. (Hjort 2009)

If we follow papers edited by Hjort, we get two hypotheses for making sense of mobile multimedia 2.0. Some follow Hjort (above), and predict more radical change in the way in which people relate to the world. In cultural studies slang, cam phones reconfigure some of the most important issues of our lives, including the boundary between public, private and personal. Some papers in her collection argue that these sites are much like cam phone shots have been from the beginning. They are by ordinary people about ordinary things, and have meaning to the sender and a few friends rather than to the whole world (Lee 2009; Bo 2009; Scifo 2009).

This paper looks at mobile multimedia 2.0 from a loose ethnomethodological perspective. It takes its clue from Hjort's work, but respecifies mobile multimedia 2.0 as an interactional phenomenon. There are two reasons for this specification. First, as valuable as recent work on mobile multimedia 2.0 has been, it is based on interview accounts rather than on actual data. We have repeatedly seen that although people are skillful, even artful, in doing things, they are not often able to explain in detail what

they do with others. With a proper look at interaction, we may produce a more accurate description of mobile multimedia 2.0 than by relying on interviews. Second, recent work mostly builds on cultural studies in which people easily become "cultural dopes," i.e. they are seen as creatures who reproduce culture through what they do (Garfinkel 1967). This is an oversocialized way of seeing people, in which individuality and the specifics of action are hidden beyond categories of identity and social group that describe central tendencies rather than specificity (Wrong 1998). When we look beyond these central tendencies called cultural patterns, we see variation that is easily lost in these cultural analyses.

2. Interaction Order in Mobile Multimedia 2.0

In a posthumously published presidential address to the American Sociological Association, the sociologist Erving Goffman defined his topic of interest as interaction order. With this concept he meant those forms of social interaction that unfold in the presence of others, that are situational, and that are orderly. As he noted, hey can be studied on their own right without recourse to traditional sociological explanations stemming from, say Durkheimian sociology. After all, it is possible to study "interruption rights at breakfast as well as courtrooms" (Goffman 1983: 3). Although Goffman restricted his analysis to face-to-face situations only, more recent research has fruitfully applied the concept to technologically mediated interactions including in particular mobile games (Licoppe and Inada 2009a,b).

The key thing in understanding the interaction order of mobile multimedia is its distribution model. In one-to-one/few messaging typical to the first generation of

mobile multimedia communication, messages were sent from one phone to another largely by using age-old methods (cf. Koskinen 2008). For instance, when one sends a question, tease, or puzzles, he initiates a sequence in which the second message was typically expected. It was a reply, humorous response to the tease, or a guess (and sometimes a beg for a tip). Because multimedia 1.0 technology (e.g. MMS or email) requires the sender to explicate at least one recipient, also candidate respondents are easy to identify. The respondent also knows his job in pursuing the interaction, if he chooses to be a good sport. If he does not play the game, his missing response, or wrong response is "noticeable" (Schegloff and Sacks 1973).

In the one-to-many distribution model of mobile multimedia 2.0, this pattern goes through many changes. When a picture is posted on a Web site, it is seldom targeted to any particular individual, but viewable by basically anyone who has access to and happens to surf to the page. While practically every site offer communication possibilities like commenting possibilities and e-mail, it is however not so obvious who is to respond. The problem, then, is self-selection among respondents: who responds, and on what grounds. (For self-selection in conversation, see Sacks, Schegloff and Jefferson 1974).

All multimedia sites offer several other technical and non-technical grounds for constructing responses. Sites like Flickr and Ovi also give people an option to explain their pictures by adding a title, explanatory piece of text, tags (for example, "Gaudi"), sets and collections (like "Pictures from Boston, 2006"), hyperlinks, and even some html code. In addition, there can be machine-generated information, e.g. default image name, information on camera, exposure or location of the photo. Although

texts and tags are seldom exhaustive, without them the viewers have relatively few means to make sense of the site owner and his motives. Basically, they can infer some things about the site owner's interests and preferences from pictures, his friend list, and a few other hints he has made available (like personal information about his likes and dislikes, the place of living, and so forth). In some cases, one can go pretty far with this information. Thus the name max.traveler tells about Max's interests, and if one's site has 3000 pictures of cats and cat shows, it is relatively easy to see that the owner is a cat enthusiast. If the site is more complex, these inferences get more complicated.

The argument we want to make here is that to understand mobile multimedia 2.0, we have a tremendous resource at our disposal: it is just these understandings and methods of response people themselves rely on in making sense of this phenomenon. We need to a classic ethnomethodological trick, and make action in multimedia 2.0 a topic for analysis. By looking at what people do on the Web, we are able to provide a very detailed account of where mobile multimedia is going on the Web, and how it is evolving. Essentially, we need to look at how people build their messages for the Web, and how people "self-select" themselves as respondents. Unlike in mobile multimedia 1.0, there is no social pressure to respond to messages; we are dealing with something far looser, something that is respondent-initiated. The question we explore in this paper is what kind of interaction order (Goffman 1983) prevails in mobile multimedia 2.0. Our focus is on what resources people use to decide that a response is appropriate, how they respond, and what methods of response they use.

The following exploratory observations are based on an analysis of interaction on Ilpo Koskinen's and Esko Kurvinen's Flickr sites. Focusing on our sites surely biases the analysis, but to control this bias, we focus on responses only, and the benefit of this decision is that the quality of data is excellent. However, or focus on responses long chains of replies and responses in comments on text-based sites and things like questions and replies in comments on sites like Flickr remain unanalyzed until better data comes along.

3. The Basis of Interaction Order: the Page – View Pair

The elementary form of interaction of mobile multimedia 2.0 consists of a Web page on which someone places some content, and someone else who views this content. This content is produced with a phone, although if can also be touched with computers. Most Web 2.0 sites also provide site owners with means to follow what is taking place on the site. For example, Flickr produces statistics that tell how many "daily aggregate views" have been on the site, break all-time viewing into statistics, provide means to follow how popular individual images have been, and provide means to follow comments and mail. The massive basis of use, however, is the basic pair of a page and a view.

For example, the following picture was downloaded to Flickr on August 28, 2009. The picture has a technical name given by the camera. The text only tells that it is the Linné garden, but other pictures from the same day provide more contextual information about the reason for placing this picture on the Web. Other pictures tell that it is Carl von Linné's famous garden in Uppsala, Sweden, the birthplace of

modern taxonomy and biology. Flickr tells that on the first day, it had been viewed three times.

Example 1. DCS_0037

The Linné garden.

flickr.com/photos/ikkoskinen/3865898244/

The elementary form of interaction in mobile multimedia 2.0 is the pair of a picture, possibly added with text, and viewing. The best way to appreciate the importance of this pair is through statistics. IK's site on August 25, 2009, there were 5032 images that had been viewed 209,055 times, with the most popular image having amassed 5127 views. There were only 53 comments, 200 images tagged 263 times as "favorites" (the most popular one having 8 tagged as "favorite"). Most of these pictures are taken with a camera rather than cam phone, but the life cycle of IK's site suggests that over a roughly two-year span, practically any picture gathers on average 40 viewings. When one thinks about the yet limited uses of camera phones, this is a significant expansion. Most action is hidden in that we do not know much about who views Web 2.0 sites, what they think, how they use images and text. Here is the hidden basis of interaction order of mobile multimedia 2.0.

4. Recipient Selection and Non-Response

If we go beyond the basic pair, we begin better appreciate interaction in mobile multimedia 2.0. In methodic terms, interaction in mobile multimedia 2.0 has many

similarities to earlier mobile multimedia. The first one is about how content is directed at certain people. Although posting pictures to the Web usually opens them to basically anyone who happens to surf to the site, site owners do many things that make them relevant for specific respondents. In addition to sending a link to colleagues, the methods site owners use for picking up respondents from the Web-surfing vary, but build mostly on age-old methods familiar from any other type of interaction.

For example, pictures may be specifically designated for certain recipients. Means for such designations vary, but many are familiar from the earlier generation of mobile multimedia. Often, there are recipient designations that show that a picture is specifically meant for someone. This is the case in the following example, in which IK took a picture of laser cutters at work in an American design school, and sent it to his technically oriented colleague at his home university, formulating it as a question with an obvious rhetoric tone. As the first word of the posting shows, IK had sent similar pictures to his colleague before.

Example 2. Laser Cutters

Again, pictures for Raimo Nikkanen. Do we need laser cutters..?

flickr.com/photos/ikkoskinen/314516370/

Obviously, there are many normatively stronger ways to invite responses from specific recipients. For example, people may add many types of "first-pair parts" of

adjacency pairs (Schegloff and Sacks 1973) to their images. Some pages call forth teases and riddles that lead to longer sequences of interaction.

However, there is an important difference to face-to-face situations in which such recipient designations pick up the next respondent. With everybody's gaze turned to him, this next respondent is typically supposed to take the next turn (though he can turn it down too). Similarly, a response is expected for text messages and multimedia messages (Kasesniemi 2003; Laursen 2005; Kurvinen 2007; Koskinen 2007). On the Web, in contract, this normative expectation changes. There is no immediate pressure to take action, and as the response may take place through multiple channels, there is no pressure to respond. Possible channels consist of face-to-face feedback, phone call, e-mail, text messages and multimedia messages. In the language of conversation analysis, non-response on the Web is not "noticeably absent" (Schegloff and Sacks 1973). Social organization remains mostly outside public sight.

5. Self-Initiated Responses

The third form of interaction consists of viewer-initiated responses. Some of these actions are relatively easy to do without any apparent reason. As Goffman (1963) has amply illustrated, many features we take for granted in public places are actually achievements. That we can do whatever we are doing is because others let us mind our own business, and vice versa. We pay civil inattention to others. However, we also have rights to initiate interactions by, say, asking small favors like asking for time, as long as we follow some rituals, including saying "excuse me's" before asking

for these small favors. (Goffman 1963: 139-145). Similar actions happen on the Web too, as the following appreciative comment from Flickr shows.

Example 3.

InventiveMedia Photography says:

Thats probably the best traffic shot of

the cities I have ever seen......great

work   flickr.com/photos/gbenz/1130600139/in/set-

Posted 24 months ago.   72157605247902690/

Of course, Web pages raise many types of thoughts, feelings and ideas among viewers. Miksaboy's message is one of many similar complaints he has sent to EK. Although "flaming" messages intentionally break ordinary norms of courtesy, the message from Miksaboy builds on another type of code, namely that Flickr or the Internet in general is for "high quality photos," or for "photos with a point."

Example 4. 20070621T203510

miksaboy says:

Oh, man! One can only wonder your enthusiasm for sharing all these

pointless cameraphone photos of yours! EKurvine, you must be like

THE CRAPPIEST photographer I've EVER seen!

Complaints and corrections seek to ensure that information of the web is correct and meaningful, but raise an interaction problem. When one points out that someone else is wrong, this action can be rude and even face-threatening. In consequence, it usually requires mitigations of some sort typical to adversary actions in any interaction (Pomerantz 1984). In one instance, IK had placed a picture of what he three Japanese geisha students to his site. One visitor wanted to correct him while also asking for

permission to publish some of his pictures on a site specializing on Japan. The message ended with cordial greetings, which removed any doubt about the rudeness of the message.

A slightly more complicated response builds on what Sacks (1972) called membership categorization. In brief, people view pictures, infer that the sender is interested in something, categorize the sender, and then construct their response based on what they know about people in this category. In the following example, IK received an inquiry about design schools from India. IK had lots of pictures about design, but also about many backstages of design and design schools. The message asked for advice on good design schools with some design specialties in mind. It assumes that IK is knowledgeable of design and capable of giving advice for selecting a good school, and willing to help a future colleague in understanding and negotiating access to schools.

Some responses build on what Sacks called "relational" membership categories (Sacks 1966: 36-41). In the following message, IK got a note from the grandson of Mr. Wayne Healy, a mural painter based in East Los Angeles. This message tells that the sender had seen a few images and recognized them as paintings by his grandfather. He had also read the texts, thought that they flatter his granddad, and noted that IK had shared his admiration with his friends and family.

Example 5. (Mail to IK)

East La Murals

Hey I saw the photos you took in east la, I really like that you appreciate the artwork my grandfather did. He is still around and continues to paint. He is known in east los angles as the

father of Chicano Art. I appreciate you showing his murals on here and spreading it to your friends and family thank you again.

After reading this response, IK knew that the sender not only had seen the pictures, but he had also liked them, and that they had been personal experiences for him. IK also knew the sender's lineage to Wayne Healy, learned that he is still around and working, and that he is a special man in the art world of East Los Angeles. At a more general level, what made this interaction heart-warming was the relationship of both parties to Mr. Healy. It is this relationship that gave this exchange relevance, and justified it. The exchange went on with "thank yous" and "you are welcomes," plus an exchange of personal information. This exchange had personal relevance.

As examples in this section show, there are many "commentables" on mobile multimedia 2.0. Whenever people post material onto a Web 2.0 site, they also expose themselves to many types of interests. As we have seen earlier, a good deal of this action remains hidden from all but statistical robots from Web 2.0 sited. However, although this section has barely scratched the surface of viewer action, it has shown that individuals often take initiative in their own hands, and can do many things to advance their interests. Still, the forms of interaction are by and large what they have been for ages in face-to-face interaction (Goffman 1983), e-mail, SMS (Laursen 2005), MMS communication (Kurvinen 2007; Koskinen 2007), and mobile games (Licoppe and Inada 2009a,b).

6. Responses on Collective and Institutional Interests

When compared to the first generation of camera phones, there is one area in which mobile multimedia 2.0 makes a significant difference. One of the most celebrated features of the online world is its ability to organize interests and give voice to grassroots initiative (see Rheingold 2003). Though several empirical studies argue the revolutionary properties of the Web maybe overestimated (see Miller and Slater 2000; Pertierra et al. 2002), the main point of the argument is certainly valid. Mobile multimedia 2.0 makes it easy to mobilize interests and even construct organizations through constructing, pooling, and sharing information, and providing a room for debate while bypassing institutional social controls and editorial practices of traditional media organizations.

Two cases have to be distinguished. In the first case responses animate the interests of institutionalized, but still informal groups. A good deal of viewer initiative on mobile multimedia 2.0 actually builds on more or less organized interests and community memberships. Thus, a site like Flickr has thousands of "public groups" who share a passion for, say "HDR images" or "Persian cats." Knowing these membership categories gives viewers a bunch of knowledge and assumptions about what kind of person he is dealing with. As in most institutional groups, these groups have rules that sometimes function without problems, sometimes need to be renegotiated, and sometimes may even need policing.

In the following example, IK got a request to give some of his pictures to a group interested in John Lautner's architecture. Lautner designed several buildings that have

got an iconic status, and some even a cult-like admiration. Having seen photos of Mr. Lautner's designs on IK's site gave the sender of the message a justification to approach him. In asking material for a site like this, the sender speaks on behalf of many other people; giving voice to a "passionate" community gives weight to his request. In asking IK to participate in this community, this message also assumes that IK also belongs to people who are passionate about Lautner's ouvre.

Example 6. (Mail to IK)

john LAUTNER Group

Hello,

Impassioned by the man and his organic but free approach of his constructions, I wish here to gather the maximum of photographs of the achievements of John LAUTNER.

www.flickr.com/groups/725679@N20/

Thanks, ((name removed))

In the second case responses animate the interests of structured, semi-commercial organizational institutions. In the following example, IK was approached by a small news agency that Web 2.0 has made possible. The picture made an offhand commentary of LA's environmental impact, contrasting Southern Californian lifestyle with a Christmas picture of surfers in Newport Beach with a layer of smog hanging over the city, and with the sky covered with streams from airplanes.

Example 7. (Mail to IK)

Your Los Angeles Smog photo

Hi Ilpo's Sojourn,

I've just posted an article on NowPublic about Los Angeles being the worst city in the nation for smog and pollution. NowPublic is a news agency that uses original stories and photos--

from contributors like you-- to share the news.

I wanted to see if

Here's the link to share:

www.nowpublic.com/import/463786f302b6d6.68109947

Thanks, ((name removed))

As these examples show, people surf the Web not only for personal reasons but also for organizations, taking action on professional grounds. These responses build on broader social debates and considerations, and stem from editorial processes. As we have also seen, these organized, basically non-personal responses may build on membership categorization devices, but these are knowledge and interest-based rather than relational (Sacks 1966: 47-53).

7. Discussion

Our observations above have shown that multimedia 2.0 functions on different grounds than the first, more phone centered communication. It is a rich domain that deserves analysis on its own. In contrast to the period of mobile multimedia 1.0, the current user of mobile multimedia faces a much wider range of possibilities for action. When Web 2.0, not the phone, functions as a distribution channel, communication changes from one-to-one to one-to-many. For communication, this may be a radical change. This paper explored whether it is so.

Quantitatively speaking, the basis of interaction order we have studies is a simple pair of a Web page with content, and marks left by someone viewing or commenting it. We saw that IK's site has gathered over 200.000 views over its existence for its

roughly 5000 images. Although most images on the site are taken with a camera, not multimedia phone, these figures tell about significant potential compared to mobile multimedia 1.0 distribution model. It is not only that exposure of pictures is far wider than previously, but also the ways we now receive feedback, in form of statistics or commentary, are richer.

Qualitatively, the change is less pronounced. We have seen that on a closer look, responses largely are designed using traditional, age-old methods of action. Most of these methods are familiar to us from mobile multimedia 1.0, text messages, and conversation. In addition to the basic pair of a Web page and viewing it, we find respondent selection techniques and self-selection techniques familiar to us from multi-party conversations (Sacks, Schegloff and Jefferson 1974). We also see things like membership categorization devices at work on the Web.

What does this analysis tell about more traditional sociological concerns? Does the change in the distribution channel also change the way in which we relate to other people? While mobile communications in general seem concentrate our interactions to friends and acquaintances, creating "monadic clusters" (Gergen 2008), how does this change in mobile multimedia 2.0? Quantitatively speaking, it is obvious that all the people that view, bookmark, rank or send appreciative or complaining comments to Web content are from these monadic clusters. Our observations of interaction suggest that response can come from many sources, build on many interests, and it can be either individual or organized in nature.

This is no doubt something we do not face in previous generations of mobile media. Although examples analyzed for this paper were set up for friends and colleagues, they are still viewed by many others. They has been used for a variety of purposes, many of which go significantly beyond the interests of the intended audience. Of course, given the personal, academic, and aesthetic nature of the examples, they have invited only few political remarks. In this sense, Gergen's worry about the negative implications of mobile communication to democracy are justified. If there is politics, it is fairly trivial. IK has lots of imagery from the back stages of design, exposing its inner workings to outsiders. But, this is a small world.

What comes to the culture-changing power of mobile multimedia 2.0, this analysis suggests a few routes. When content is distributed through Web 2.0, its culture-constituting power of camera phones gets a significant boost when compared to the first generation of mobile multimedia. To an extent, people do reconstitute their vision of the world with new mobile multimedia technologies (Hjort 2009). However, it has been noted elsewhere that the content of mobile multimedia 2.0 is conventional and everyday-ish (Lee 2009; Bo 2009; Scifo 2009). Our analysis suggests that it is fair to align with those (Miller and Slater 2000; Koskinen et al. 2002; Kasesniemi 2003; Kurvinen 2007; Koskinen 2007), who have interpreted the Web, text messages, and multimedia messaging as slow evolution rather then radical change.

References

Bo, G. 2009. A World Through the Camera Phone Lens: A Case Study of Beijing Camera Phone Use. *Knowledge, Technology, and Policy* 22(3) (forthcoming).

Garfinkel, H. 1967. *Studies in Ethnomethodology*. Englewood Cliffs, NJ: Prentice—
Hall.

Gergen, K. 2008. Mobile Communication and the Transformation of the Democratic
Process. Pp. 297-310. In *Handbook of Mobile Communication Studies*, edited
by J. E. Katz. Cambridge, MA: MIT Press.

Goffman, E. 1963. *Behavior in Public Places*. New York: The Free Press.

Goffman, E. 1983. The Interaction Order. *American Sociological Review* 48: 1-17.

Hjort, L. 2009. Photo Shopping: A snapshot on camera phone practices in an age of
Web 2.0. *Knowledge, Technology, and Policy* 22:3 (forthcoming).

Kasesniemi, E-L. 2003. *Mobile Messages*. *Young People and New Communication
Culture*. Vammala: University of Tampere Press.

Koskinen, I. 2007. *Mobile Multimedia in Action*. Transaction Publishers: New Jersey.

Koskinen, I. 2008. Mobile Multimedia 2.0? Paper presented in *The Role of New
Technologies in Global Societies*, The Hong Kong Polytechnic University,
Hong Kong, 30-31 July 2008.

Koskinen, I., Kurvinen, E., and Lehtonen, T-K. 2002. *Mobile Image*. Helsinki: IT
Press.

Kurvinen, E. 2007. *Prototyping Social Action*. UIAH: Helsinki.

Laursen, D. 2005. Please Reply! The Replying Norm in Adolescent SMS
Communication. In *The Inside Text*. *Social, Cultural an Design Perspectives
on SMS*, edited by R. Harper, L. Palen and A. Taylor. Dordrecht: Springer.

Lee, D-H. 2009. Mobile Snapshots and Private/Public Boundaries. *Knowledge,
Technology, and Policy* 22:3 (forthcoming).

Licoppe, C. and Inada, Y. 2009a. Shared Encounters in a Location Aware and
Proximity Aware Mobile Community. The *Mogi* Case. In *Shared Encounters*,

edited by K. Willis, G. Roussos, K. Chorianopoulos, and M. Struppek. Springer, UK. In press.

Licoppe, C. and Inada,Y. 2009b. Mediated Co-Proximity and Its Dangers in a Location-Aware Community: A Case of Stalking. In *Digital Cityscapes: Merging Digital and Urban Playspaces*, edited by A. de Souza e Silva and D. M. Sutko. New York: Peter Lang, pp.100-126. (In press.)

Miller, D. and Slater, D. 2000. *The Internet. An Ethnographic Approach*. Oxford: Berg.

Pertierra, R. et al. 2002. *Txt—ing Selves. Cellphones and Philippine Modernity*. Manila: De La Salle University Press.

Pomerantz, A. 1984. Agreeing and Disagreeing with Assessments: Some Features of Preferred/Dispreferred Turn Shapes. In *Structures of Social Action. Studies in Conversation Analysis*, edited by J. M. Atkinson and J. Heritage. Cambridge: Cambridge University Press.

Rheingold, H. 2003. *Smart Mobs. The Next Social Revolution*. Cambridge, MA: Perseus.

Sacks, H. 1966. *The Search for Help: No One to Turn To*. Unpublished Ph.D. thesis, University of California Berkeley, sociology, general.

Sacks, H. 1972. An Initial Investigation of the Usability of Conversational Data for Doing Sociology. In *Studies in Social Interaction*, edited by D. Sudnow. New York: The Free Press.

Sacks, H., Schegloff, E. A. and Jefferson, G. 1974. A Simplest Systematics for the Organization of Turn Taking in Conversation. *Language* 50: 696—735.

Schegloff, E. A. and Sacks, H. 1973. Opening up Closings. *Semiotica* 8: 289—327.

Scifo, B. 2009. The Socio-Cultural Forms of Mobile Personal Photographs in a Cross-Media Ecology. Reflections Starting from the Young Italian Experience. *Knowledge, Technology, and Policy* 22:3 (forthcoming).

Wrong, D. 1998. The Oversocialized Concept of Man. New Brunswick, NJ: Transaction.