

Linguistics and the New Media

By Miriam A. Locher und Lorenza Mondada

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Abstract

This chapter explores the question how linguistics has reacted to the new media and how our field of study has turned them into an object of study. In the introduction we first explain what linguists explore in general and how they can study language use within the new media, using the methodological possibilities for linguistics that the digital humanities provide. The second section will illustrate three areas of research that have characterized the field over the last two decades: Is there a particular language on the Internet, how is interaction managed through language in particular online contexts, and how can we explore the ecology of practices of people interacting in physical and virtual contexts.

1. Introduction and positioning of the topic

In this chapter we explore the question of how linguistics has studied the new media and how our discipline has made use of digital humanities in this. The frequency, social significance and variety of uses characterizing the new media show the constitutive importance and variability of language in these contemporary communicative practices. Therefore, it is not surprising that linguists have studied computer-mediated communication (CMC) for more than twenty years. In what follows we will first explain what linguists explore in general and then move to a number of linguistic topics that have emerged within CMC studies.

The discipline of linguistics is interested in studying language from many different angles: Language can be conceived as a coherent and homogeneous system, but can also be studied in its variations across time and space, as well as for how it is actually used in social interaction and how it reveals underlying cognitive processes. All of these classic areas of study are also of relevance for CMC and are often related to each other. We will briefly illustrate each field to show the scope of linguistic interest without claiming completeness (for overviews see Crystal 2006, 2011; Thurlow and Mroczek 2011; Yus 2011; Herring 2013; Herring et al. 2013; Locher 2014).

With respect to *language as system* (phonology, morphology, syntax, semantics and pragmatics of a particular language), new media have been a very fruitful *locus* to observe creativity and change at all levels. For example, we can observe how well documented oral processes such as blurring word boundaries phonologically and morphologically find their use in the written form of informal chat communication. The sentence 'Was ist denn das?' ('what is this?') can thus be rendered as 'Wasisndas?'. Specific uses of numbers and orthography such as 'cul8er' ('see you later') or 'satedi 1 fête 12c4?' ('ça te dit une fête un de ces quatre?'/ 'are you interested in a party one of these days?') are shaping new writing routines. Abbreviations such as 'yolo' ('you only live once'), 'lol' ('laughing out loud') or its equivalents in other languages ('mdr', 'ptdr', xdr, xpdr for 'mort de rire', 'pété de rire', 'explosé de rire' in French), or the specific use of the hashtag # for tagging important words, can be found in Twitter and text messages and are circulating in other contexts. How these forms are created and adopted, how new conventions emerge, how they spread from one context to the next is of interest to linguists.

Variations of *language in space and time* concern for example the use of dialects, sociolects, the use of a lingua franca as well as multilingualism on the Net. To give just one example, one can observe that Facebook users who do not have English as their first language often write their status updates in lingua franca English in order to reach all of the 'friends' on their list, who may be located around the globe and do not share the same first language. Ensuing reactions to these status updates, however, can occur in the local languages that the interactants share in their face to face encounters. A Swiss person may thus choose to write a status update in English and then switch to a Swiss German dialect in the follow-up conversation (see the example and references given in Section 2.2). Far from having imposed English everywhere, Internet and the new media have represented a new impetus for minority and endangered languages – as shown for example by the project Indigeneous Tweets by Kevin Patrick Scannel (<http://indigenoustweets.com>), who collected a corpus of tweets in more than 150 languages and raised interesting issues about how languages are categorized, counted and made visible on Twitter.

Language as interaction is a wide field of research that is interested in how people use language in particular practices. For example, language use is regulated by general as well as specific organizational principles as well as norms of interaction and local constraints. Linguists are interested in how these systematicities and norms emerge, are negotiated and sanctioned by the participants of a practice. For instance, new politeness phenomena have been studied within CMC in the context of Netiquette or FAQ pages. Studies of interaction are also concerned with how people negotiate meaning, how they respond to each other, how they manage turns (e.g. in chats and text messaging or in the comments section on newspaper articles, blogs or status updates), and how they increasingly draw on multimodal means of

interaction rather than just graphological ones (e.g. in Youtube clips, picture comments and memes) (see Section 2.3).

Finally, the field of *cognitive linguistics* also lends itself to study CMC. For example, the intricacy and interplay of various digital environments have been characterized in terms of cognitive overload and distraction characterizing multitasking on the web. Online practices of writing within often multiple simultaneous (a)synchronous interfaces reveals the flexibility of real time complex cognitive processes, embedded in social activities. Moreover, metaphor analysis, interested in semantic and cognitive reasoning, allows us to explore how new and old semantic fields are built when human beings make sense of novel contexts by means of analogies to physical experience. The terms 'desktop', 'folder', 'file', or 'trash' are such examples of transferring the physical office environment into the virtual world in an attempt to create meaning in the novel interface.

In all of these areas of exploration, linguistics is interested in discovering patterns and regularities. Language use in the new media is not considered as an exceptional or deviant form of communication. Rather, it is seen as yet another platform where human beings use language in order to produce meaning and explore forms in order to exploit and create new symbolic resources. Since we can hardly imagine the Western world without the possibilities of the new media any longer, it goes without saying that linguistics is keen to explore CMC. In doing this, it uses many different methodologies, covering the entire spectrum of possibilities available for the study of language in general and in face to face interaction: linguists work qualitatively as well as quantitatively, in an experimental or empirical manner, on the basis of corpora or of digital ethnographies, and with descriptive and theory-building aims (see Bolander and Locher 2014 for an overview of methodologies).

The possibilities offered by the web have impacted linguistic methodologies in at least two ways. On the one hand, the entire Internet can serve as source ('web as corpus') or one can compile a custom-made corpus of data for a specific purpose ('web for corpus'; see Hundt, Nesselhauf and Biewer 2007: 2-3; Bolander and Locher 2014). In Section 2 of this paper we will go into more detail about this field of linguistics. On the other hand, linguists also make use of the technological and methodological possibilities that web platforms offer for preparing, analyzing, archiving, and circulating language data. Technological developments in the field of digitalized data storage and program development have made it possible for the field of corpus linguistics to work with large quantities of data and to make use of automatic search engines and data mining software (see, e.g., Biber et al. 1998; Sinclair 1991; MacWhinney 2007; Hundt et al. 2007). Web interfaces have been created not only for accessing traditional corpora of data collected and managed outside the Internet (for example the *BNC*, *British National Corpus*, an archive of written texts complemented by a smaller set of transcribed spoken data), but also for building original digital platforms offering tools for data-sharing, archiving and

browsing (for example, the database *TalkBank* offers an archive of audio and video data collected in different projects from a number of contexts such as the language of children or ordinary conversation in a diversity of languages; the database *CLAP* makes available audio and video corpora of French in a variety of social interactions). These corpus technologies also develop tools to browse and investigate the web considered as an enormous corpus (for example the site of Jean Véronis, *Technologies du langage*, offers various tools for researching and quantifying political discourse on the web). So, even if digital possibilities used by linguistics are not limited to web technologies and data, they are fruitfully used for exploring the web both as technology and data.

Furthermore, the web has also generated important demands within linguistic engineering and computational linguistics to both scientific research and private enterprises, namely regarding lexicons (in different languages, different specialities, e.g. medical, chemical...), statistic and data mining tools, machine learning methods, automatic recognition of linguistic forms, search engines, semantic domain information, and automatic translation. Having acknowledged these advancements for linguistic methodology, we now turn to exploring the field of language use in the new media in more detail.

2. Language in the New Media

As mentioned previously, linguistics can already look back to more than twenty years of research on CMC. During this time, a number of terms have been proposed to refer to the subject of study, ranging from 'Netspeak', 'computer-mediated communication' (CMC), 'computer-mediated discourse' (CMD), 'digital discourse', 'electronic discourse', 'e-communication', 'digitally mediated communication' to 'keyboard-to-screen communication' (for overviews, see Crystal 2006, 2011; Jucker and Dürscheid 2012; Herring 2013; Herring et al. 2013; Thurlow and Mroczek 2011; Locher 2014). Whichever term you adopt, Crystal (2011: 149) makes clear that "[t]he Internet is the largest area of language development we have seen in our lifetimes. Only two things are certain: it is not going to go away, and it is going to get larger." Furthermore, he describes three challenges for linguists working with data from the new media (2011: 10): (1) The Internet and the generated language data are continually and rapidly growing; (2) language use is diverse and heterogeneous in the different practices; and (3) practices that come into existence or stop being used are changing at high speed. This raises interesting challenges – for example, it is almost impossible to reproduce data collections in the web, since the parameters under which data was collected will have changed in the meantime.

In what follows we will focus on three areas within CMC research to illustrate some of the questions that linguistics explores with respect to language use within the digital world. First, we will revisit the question whether there is such a thing as 'Netspeak', which was one of the early research thrusts. Then we will illustrate the field of language and interaction with examples from Second Life, Facebook, Chat, Instant Messaging and other interfaces found on the web before moving to the question of how people communicating together are grounded in their physical space when engaging in virtual practice.

2.1 'Netspeak' and diversity of language use on the Net

Early CMC research asked whether new technical affordances provided by new media would also lead to particular uses of language on the Internet, and even whether specific new language conventions were emerging from creative adaptations and non-standard linguistic practice. In his early work, Crystal (2001) used the term 'Netspeak' as a cover term to refer to these new conventions in general (in his later work, he no longer pursues this line of thought). Since informal environments such as chat often provided numerous examples of informal non-standard language forms (recall the examples in the introduction), which were previously documented in oral interaction rather than in written form, much early research endeavors were dedicated to positioning online interactions on a cline between oral and written communication. In retrospect, this research body has been characterized as pertaining to a form of 'computer determinism' (see Baym 1995; Androutsopoulos 2006), i.e. the technical affordances of a new media environment was given more importance than the actual uses, purposes and choices of people interacting with each other. No matter how creative, informal and non-standard the language forms observed in these early studies are, they are still solidly written, graphological exchanges (cf. Dürscheid 2003; Jucker and Dürscheid 2012). This has also prompted new discussions about the relativization of the dichotomy between spoken vs. written and explorations of hybrid practices in light of the new developments since the early 2000s which allow much more diverse intermixing of communicative channels such as videoclips, voice chat, picture annotation, etc. in addition to written communication forms (see, Herring 2013; Locher 2014 on Web 2.0 developments). Interestingly, a very similar critique of the determinism of the media was also issued by literacy studies (Finnegan 1988; Kress 2002).

The scope of communication forms or modes (e.g. emails, blogs, chat, tweets, information websites, encyclopedias, mixed Web 2.0 platforms such as Facebook, etc.) and their social and situated usages (e.g. email can be used for informal as well as formal purposes) are so diversified and have changed so fast that the idea of a general form of 'Netspeak' that describes all Internet language equally has more or less been abandoned (see Crystal 2006, 2011). In order to avoid the fallacy of computer determinism without giving up the idea that technical affordances indeed

contribute to shaping interaction and linguistic resources, current research highlights the combination of technical and social/situational dimensions (Herring 2007, 2013). This means that insights from research on face to face interaction and the study of variation (Duranti 1997) have their place in CMC studies because CMC is considered an important facet of language production by human beings, and because CMC is not practiced in specific or segregated settings but is integrated as one among other forms of communication within given socio-cultural contexts.

The following list shows the open-ended cluster of technical and medium factors, which can be systematically used to describe and compare particular forms of interaction (Herring 2007): (1) synchronicity vs. asynchronicity of the exchange; (2) one-way vs. two-way message transmission, allowing feedback or not; (3) persistence of transcript, referring to how long messages remain accessible after having been received; (4) size of message buffer, i.e. the number of characters allowed for a single message; (5) channels of communication, such as audio-visual in addition to graphical; (6) availability of tools facilitating anonymous messaging, private messaging, filtering, quoting, message format. In addition, and equally important, it matters who is speaking to whom for what purpose., Inspired by Hymes' model (1974), Herring (2007) proposes to consider the following social/situation factors for a systematic approach in describing a practice: participation structure, participation characteristics, purpose, topic or theme, tone, activity, norms, and code.

For illustration, we can compare the use of status updates in Facebook with tweets on Twitter. Both can be described as instances of micro-blogging, i.e. "short messages on the web designed for self-reporting about what one is doing, thinking, or feeling at any moment" (Lee 2011: 111), that contribute to "an ongoing performance of identity" (Zappavigna 2012: 38). While Facebook is a Web 2.0 platform, combining many different communication possibilities (microblogging in status updates, the uploading of pictures and video clips, the use of chat windows and messaging options, etc.), Twitter provides fewer technical affordances. The following comparison thus only refers to the use of tweets in Twitter and the writing of status updates in Facebook. First focusing on the medium factors, we can state that to read tweets and status updates, the users do not have to be online at the same time (no synchronicity). The message transmission is one-way in that we only see the end product of the completed text and not the act of composing it. This means that less immediacy is created since a potential recipient cannot see whether a message is being produced. The status updates and tweets remain available and are thus persistent (although, users have the possibility of deleting their own tweets or status updates). Tweets are limited to 140 characters, and, while the length of status updates in Facebook used to be restricted to 160, it now allows up to 63'206 characters. The channels of communication are predominantly written (although one can also post visual material in the same interaction fields).

Anonymous and private messaging are available to a certain degree with the users managing the privacy settings of their friends and follower lists (see also 'participant characteristics' below). The technical possibilities of filtering and blocking contributions and quoting previous text are available. In both cases, the most recent tweet or status update is displayed at the top of the page (message format). In addition, Twitter offers the possibilities of connecting tweets by means of mention of topics (hashtags), which has only been available in Facebook since mid 2013. The comparison of the technical factors thus shows that the main differences between tweets and Facebook status updates are to be found in the factors of 'size of message buffer' (i.e. length), in how the friends or followers are managed and how coherence is created. As a consequence, these two interfaces and the practices they afford are radically different with respect to micro-blogging in status updates.

Turning to the situation/social factors proposed by Herring (2007), establishing a simple difference between Facebook and Twitter or establishing a unified practice within the two becomes more difficult. This is mainly the case because users of both platforms have certain liberties of designing their own participation frameworks by creating open or private accounts and by establishing who sees their status updates and tweets publicly or privately (participation structure). Accordingly, for some users, the participant characteristics will be known to them because they only allow known people to become followers or friends, while other users will have a heterogeneous group of people follow their tweets and status updates. The purpose, topic, themes and activities performed in the tweets/status updates cover a wide range from passing on information on events to personal thoughts and ideas. There are certain linguistic 'norms' such as the use of @name or #topic and abbreviations (Twitter) or the fact that the prompt for the status update in Facebook used to be 'What are you doing?' and is now 'What's on your mind?', which exploits different metaphorical fields and then in turn influences what is being written about. Finally, the factor 'code' refers to the different languages and graphological alphabets that are employed. While English as a lingua franca is clearly important in both practices, use shows that many different languages and writing systems are in fact employed.

What becomes clear by this brief description and comparison of Tweets and Facebook status updates is that (1) there are indeed technical affordances that influence language practice, but (2) that they have to be seen in connection with the social/situational factors, and (3) that the systems themselves are constantly changing and are appropriated by the users for their own purposes and constantly re-appropriated for new ones.

Returning to the question whether there is a unified 'Netspeak' posed at the beginning of this section, we can thus clearly answer no. However, rather than deploring this negative result, we would like to stress that it is fascinating to observe

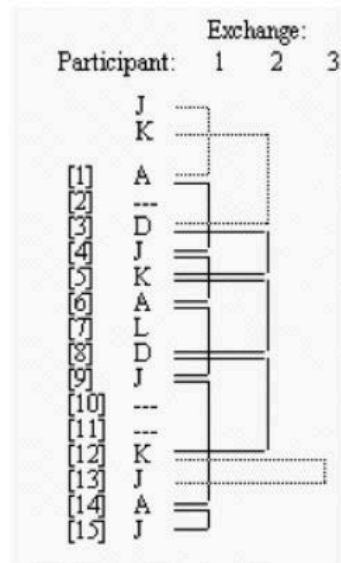
how people have adopted and adapted the new technical affordances for their own creative and diverse language use. Rather than being passive recipients of new technical forms of communication, people have been and still are actively shaping practices for a multiplicity of purposes. The absence of a unique Netspeak shows that the web is a locus of much wider forms of linguistic creativity and diversity.

2.2 Examples of language in interaction

Rather than remaining at a bird's eye view of communicative forms, we will now turn to how language is used interactively in a number of extracts from the new media. Since the beginning of CMC there have been discussions and controversies about differences and similarities between the organization of interaction in face to face and mediated dialogues. Of course, the complex temporality of face to face is not the same as the complex temporalities of synchronous/quasi-synchronous and a-synchronous mediated exchanges. The latter afford intertwined exchanges as in Extract 1:

Example 1

1. <ashna> hi jatt
2. *** Signoff: puja (EOF From client)
3. <Dave-G> kally i was only joking around
4. <Jatt> ashna: hello?
5. <kally> dave-g it was funny
6. <ashna> how are u jatt
7. <LUCKMAN> ssa all
8. <Dave-G> kally you da woman!
9. <Jatt> ashna: do we know eachother?. I'm ok how are you
10. *** LUCKMAN has left channel #PUNJAB
11. *** LUCKMAN has joined channel #punjab
12. <kally> dave-g good stuff.)
13. <Jatt> kally: so hows school life, life in geneal, love life, family life?
14. <ashna> jatt no we don't know each other, i fine
15. <Jatt> ashna: where r ya from?



Extract 1 (from Herring 1999)

In this exchange Ashna (line 1) interacts with Jatt (who responds in line 4), while Dave-G (3) interacts with Kally (8). So two conversations seem to unfold in parallel. However, this is not a specificity of chats – since the phenomenon of ‘schism’ is well documented for conversation too. Moreover, at some point Jatt also addresses Kally, displaying that he knows her – whereas he explicitly states that he does not know Ashna. So, parallel conversations can become one at some point, and then separate again – all the participants having access to the ongoing exchanges. Rather than being radically different from face to face conversation, chat implements the fundamental principles of social interaction – such as turn-taking and sequentiality – although it does it in specific formats, supported by the possibilities of the interface.

As also documented by early studies, participants orient to sequential organization. Even in asynchronous modes they tend to re-establish it – such as in the exchanges of messages in a discussion list in Extract 2.

message 1 (cf/00:5:20)

Bob Watts has convinced himself of several impossible things,
mostly because he does not appear to understand the difference
between molecules and atoms, and because he does not have
a clue as to how the real world works.

message 2 (cf/20:40:50)

In article <xxx> john@xxxxx.com writes :

> Bob Watts has convinced himself of several impossible things,
I haven't convinced myself of anything. All I'm trying to do
is examine the hypothesis that chemistry might underly the CETI
results, with as few assumptions as possible about the nature of that
chemistry.
> mostly because he does not appear to understand the difference
> between molecules and atoms,
trust me : I do.
> and because he does not have a clue as to how the real world works.
That could certainly be true...

Extract 2 (from Mondada 1999)

This example shows that in replying to the first message, the second participant is particularly careful in identifying – and even in creating – transition relevance points where to insert his comments. By so doing, he establishes a structure that is very like the question/answer adjacency pair format used in face to face interaction – as well as other sequential structures, such as co-constructed utterances, repairs etc. (Mondada 1999). The way of doing it, the affordances of the medium used, the visual segmentation are specific to the medium, but not the fundamental principles governing social interaction.

Thus, the issue for the analysis is to identify both specificities and commonalities between a diversity of communicative practices. This identification also relies on the way in which we represent ('transcribe') these mediated exchanges. Extract 3a shows an example of instant messaging analyzed by Denouel (2008). The exchange could simply be represented as follows:

1	J:	salut couderc	<i>hi couderc</i>
2	LN:	eh	<i>eh</i>
3	LN:	ça a	<i>how is</i>
4	J:	salut	<i>hi</i>
5	LN:	va	<i>are you</i>
6	J:	va et toi?	<i>fine and you?</i>

Extract 3a (from Denouel, 2008)

This exchange looks very similar to a transcript of an ordinary conversation in face to face. J greets LN, who initiates a 'how are you' sequence, also engaging in a repair (line 3 repaired in line 5) and J responds (6). However, an alternative mode of representation of these data shows more specific aspects of their organization:

[C1-010505#11]

1	0.00	J			clique sur le contact <i>en ligne Ln</i> dans la <i>buddy list</i>
2	0.01				ouverture de la page « LN-conversation »
3	0.03	J			tape « salut couderc »
4	0.05	J	Ln	salut couderc	
5	0.07				« LN est en train de composer un message » s'affiche à l'écran
6	0.07	Ln	J	eh	« LN est en train de composer un message » s'affiche à l'écran
7	0.08	Ln	J	ça a	
8	0.08	J			tape « salut »
9	0.09	J	Ln	salut	« LN est en train de composer un message » s'affiche à l'écran
10	0.10	Ln	J	va	
11	0.11	J			revient vers la <i>buddy list</i> , sélectionne ensuite la fenêtre de son lecteur MP3 et sélectionne des titres
12	0.36	J			revient sur la page « Ln-conversation »
13	0.40	J			tape « va et toi? »
14	0.41	J	Ln	va et toi?	

Extract 3b (from Denouel, 2008)

This alternative transcript informs about the temporality of the exchange (on the left). It shows not only what LN and J 'say' but also what they 'do': on the right margin, a transcription of the actions of the participants, mainly consisting in typing the message, shows how the exchange is organized in an incremental emerging way. It also shows what the other party has access to, since "LN est en train de composer un message" ('LN is writing a message') is visible on J's screen. In this way, J can expect that a response is on the way. This indication also affords the composition of more complex messages, which can be segmented into various units, with their increment and continuation being projected by the announcement of more to come. Moreover, we also notice that in line 11, J switches to another activity, selecting some music from her MP3 player – only coming back to the exchange 25 seconds later to answer to LN's 'how are you'. This kind of organization shows that even a simple exchange relies on complex coordination practices and principles, to which the participants orient to, exploiting the specificities of the medium to organize them in an ordered and meaningful way.

This holds also for more sophisticated virtual environments, such as Second Life. In order to enter and interact in this virtual space, people have to first create an avatar by choosing a name and an avatar/body (a person, animal, fantasy creature or even inanimate avatars such as robots or busses). After this, they have many different communication and interaction possibilities at their disposal: The avatars can walk, fly and teleport to different locations; they can use a chat window to communicate publicly with avatars in their vicinity or they can choose to use a microphone for talking; they can use instant messaging for private chat conversation; there is written information available on posters, walls, and note cards; finally, avatars can use pre-programmed gestures and position themselves vis-à-vis others when interacting.

Extract 4 was recorded during a seminar on computer-mediated communication (Locher and Bolander 2012; Locher and Jucker 2012) and it shows the interaction between two members of the group who engaged in private written communication in an instant messenger window. The user GirlIsChef chose a cat as her avatar. After logging in and appearing in the virtual meeting place, she is immediately engaged in conversation with Philosopher (the names are pseudonyms). The comments in asterisks presented in bold is our particular focus of attention. All typographical non-standard forms in the example are in the original.

- 1 GirlIsChef is online
- 2 Philosopher: How nice to have a new freind! :))
- 3 GirlIsChef: ^_^ meow
- 4 Philosopher: ***softly stroking your wonderful fluffy fur***
- 5 GirlIsChef: ***purrrr***
- 6 Philosopher: sooo.. your fur looks lousy. probably we shoudl give you some worming tavblets?
- 7 GirlIsChef: MEW!!
- 8 GirlIsChef: Kitteh has nice furs ***nods***
- 9 Philosopher: aww .. ok, then ... probably .. some catweed? or even more strokes?
- 10 GirlIsChef: more strokes ***nods***
- 11 Philosopher: ok ok .. ***puts on thesupercat stroking glove***
- 12 GirlIsChef: meooooow!!! Is caturday!!
- 13 Philosopher: do you feel catissimo? :D

Extract 4

This brief interaction takes the visual appearance of the cat avatar as the starting point for the interaction, which then continues entirely in linguistic form. Actions such as stroking, purring, nodding or putting on 'the supercat stroking glove' are not performed by the avatar itself, but are evoked by language use alone with the well-documented chat convention of presenting actions in asterisks. While GirlIsChef was entirely new to the virtual world Second Life, she and Philosopher were experienced chat users and well familiar with this convention.

In a de-briefing session after the online seminar, GirlIsChef reported that the fact that she appeared in the form of a cat influenced how the other avatars behaved towards her: they often commented on her appearance and invaded her personal space (stroking, petting) to an extent that would have been socially impossible or marked had she been in the form of a human shaped avatar. However, having chosen the form of a cat herself, she reported to be happy to follow the ludic tone

of the interaction. Indeed, Extract 4 shows that GirlsChef triggers the playful intermezzo by responding to Philosopher's welcome with 'meow' (line 3). This invitation to treat her as a cat is taken up by Philosopher in line 4 (stroking her) and develops into a humorous exchange over several turns during which both maintain the cat persona through linguistic action, syntax (GirlsChef talks about herself in the third person imitating child language, line 8) and cat related topics.

Extracts 5 and 6 are illustrations of a multilingual interaction in Facebook, which illustrate creative use of language and word play in situ. The data is taken from a study of how 10 Swiss students and young professionals and 10 British students use status updates and how this is connected to linguistic identity construction (Bolander and Locher 2010, 2015; Locher and Bolander 2014, 2015). Extract 5 consists of a status update by Peter, who is Swiss, written in English. This status update triggers a brief dialogue between Manuel and Peter in the comments section of this post; Extract 6 is also written by a Swiss person, who gets a response of one of her friends in the comments section (SU = status update, RSU = reaction to status update, E = English, SG = Swiss German, G = Standard German; I = Italian).

SU: E Peter is full of sunshine, euphoria and bliss. yay!

RSU1: SG "chani o eini ha? ;)" [posted by Manuel]

RSU2: SG muesch aber z'erscht e bitz durch d'höll damit sie iifahrt :) [posted by Peter]

RSU3: SG chönnti gloubs grad mithaute...samstag umher? sind im x [posted by Manuel]

RSU4: G wir im presswerk bei toni rios, kommt doch nachher [posted by Peter]

RSU5: G klingt nicht mal so übel, mal sehen [posted by Manuel]

Translation:

RSU1: SG 'can I also have one? ;)' [posted by Manuel]

RSU2: SG 'first you need to go through hell a bit so that it can kick in properly :) [posted by Peter]

RSU3: SG 'I think I qualify...around on Saturday? we're at the x' [posted by Manuel]

RSU4: G 'we'll be in the [restaurant name and singer], why don't you come by afterwards' [posted by Peter]

RSU5: G 'doesn't sound bad, we'll see' [posted by Manuel]

Extract 5 (Locher and Bolander 2014)

SU: E Marina is coughing like hell.

RSU: I/G/SG oh poverina! Ich bin auch so was von verpfnüsel't. hass es. nase schon ganz rot vom schütze. bist am mi nachmittag in zb? gute besserung principessa! [posted by Luisa]

Translation:

RSU: I/G/SG *'ahh poor little thing. I also have such a terrible cold. hate it. my nose is already totally red from blowing it. will you be at the university library on Wednesday afternoon? get well princess!'*

Extract 6: Facebook (Locher and Bolander 2014)

In both extracts we see that the Swiss users choose English for their status updates, while the ensuing dialogues in the comments section are written in a mixture of standard German, Swiss dialect and a few words of Italian. These choices can be explained with audience design. As the status update is addressed at the wider audience, i.e. all members of the friends list, the use of the lingua franca English allows Peter and Marina to also address those of their friends who are not German speakers. Once Manuel and Luisa have self-selected to comment, they move the interaction on a more local level (although the interaction is still publicly available) by choosing the local, everyday language they are used to interact in with Peter and Marina. As a result, in-groups and out-groups are created within the audience.

Extracts 5 and 6 also illustrate the interconnectedness of physical and virtual life. The contributors know each other from face to face interactions and negotiate meeting face to face at a later stage (restaurant, library). This interconnectedness of physical and virtual interaction is at the heart of the next section.

2.3. Conducts in their ecology

Linguists have been interested in the study of formal features of the language used in new media (2.1). The study of how these features are both exploited and created within specific interactional practices has enriched our knowledge of how exchanges are actually organized, and resources are adapted, transformed and arranged (2.2). Furthermore, the study of these interactional practices leads to an interest in how participants manage both their actual local setting, and the remote or virtual worlds in which they are engaged. As a matter of fact, people engage in interactions with new media in almost all situations, at home, at work, on public transport, in the car, etc. Thus, new media are not used in isolation, but within all kinds of ongoing courses of action. Communicative practices with the new media do not involve just being connected, but concern specific bodily, material, spatial, social arrangements organized here and now. Chatting with a friend during a

meeting, a family dinner, or a lonely journey to work implies different body postures and social positionings. New media afford what we have called multiactivity: they invite people to be constantly engaged in more than one course of action, either managing them in parallel or constantly shifting from one to the other (Haddington, Keisanen, Mondada and Neville 2014).

Detailed studies of how participants engage in these multiple activities have been initiated by studies on the workplace (Heath and Luff 2000) – showing how professionals work on computers, surveying, monitoring, communicating at distance but also continue to interact with their co-present colleagues. Nonetheless, multiple activities also concern the private sphere and ordinary conversations, such as for example sending SMS messages while eating with a friend (Relieu 2005) or playing virtual games while coordinating talk in and out of the game (Keating and Sunakawa 2010; Mondada 2012). In all of these cases, the local ecology of action – that is the local material, spatial, technological environment in which the participants are multimodally engaged in their uses of the media – matters for the understanding of what and how is going on. The social context matters too: individual multitasking is often seen from a normative perspective as undelicate, rude and impolite. But a closer look at people engaging in collective multiactivity or in multiactivity in the service of the ongoing action shows that this might be functional and even expected in certain settings.

In the following excerpt, quoted from Relieu (2005), Kim and Denis are two teenagers sitting together in a fast food restaurant. Kim is concentrated on the multitude of messages coming in on his smart phone and Denis tries to re-engage him in the conversation:

- 1 ((K explores the received messages))
- 2 D: ben mange!
well eat!
- 3 K: mm? ouais ouais attends.
mm? yeah yeah wait.
- 4 ((K continues his activity on the phone))
- 5 K: ah ça y est j'ai compris.
oh right I understand now
- 6 D: t'as compris quoi?
what do you understand?
- 7 D: ben y fait froid ici putain!
well it's cold here fuck!
- 8 K: hein?
what?
- 9 D: y fait froid ici
it's cold here
- 10 ((K begins to write a new message))
- 11 D: ben j'te pique des frites hein?
good I steal you some chips okay?
- 12 K: "je suis du 94 è actuelemnnet jsui a pari pour slidé"
"I am from the 94 and now I'm in Paris for a raide"
((K sends the message))

Extract 7 (Relieu, 2005: 152)

As Kim is reading and texting messages (1), Denis tries to reorient him towards the meal (2), obtaining a delaying response (3). At some point Kim verbalizes his ongoing activity (5) and Denis exploits this public formulation for initiating a repair and organizing a conversational action that projects and expects a response (6). The absence of response from Kim shows that he is gradually disengaging from the face to face interaction – as also shown by the fact that he initiates a repair of Denis' complaint about the cold (8) and by the fact that Denis ends up stealing chips from his plate (11), while Kim is absorbed in composing a new message. This case shows how participants orient to the normativity of face to face conversation, how Denis uses the expectations related to the sequentiality of talk to invite Kim to talk, and how Kim maintains a minimal co-presence although being mainly engaged in his texting activity (Relieu 2005).

That said, engaging in distant interactions with the smart phone is not systematically treated as indelicate: at some point Kim asks for help to read a message and Denis joins him to compose an answer. Thus, interacting in presence

of others with absent third parties is not per se a sanctionable action – its normative dimension is negotiated by the participants and depends on their ongoing activities and purposes.

Examples of the latter form of multiactivity are legion in work settings. Even if it is a stereotype that multitasking affects the productivity at work, multiactivity is often expected and solicited in professional settings. Call centers are a good example of this – the call-taker being involved both in talking at the phone and in some parallel activities with her computer (Mondada 2008, 2010). In Excerpt 8, the call-taker (C-T) interacts with a car mechanic (MEC) who is supposed to be in the same village as the client (JOR) who has a problem with his car. The call is characterized by the exchange of contradictory locations, in a context in which the mechanic cannot find the client.

```

1 C-T: voilà: e- à peu près à vingt kilometres de bordeaux i me dit
      here it is: e- about 20 km from Bordeaux, he tells me
2      (1.5)
3 MEC: alors là:: je sais pas. j'sais pas où i sont *hein. là
      at this point I don't know. I don't know where they are. there
      c-t                                     >>was leaning on the phone*sits up-->
4      je suis in*capable de:
      I am unable to:
      c-t                                     -->scratches head-->
5      (0.5)
6 MEC: e{h:::* mais ils sont- mais ils sont à cadillac même? (.) * &
      e{h::: but are they but are they in cadillac properly? (.) &
      -->*,*,*,*looks at and manipulates her papers-----*
7 JOR: [( )]
8 MEC: &*dans dans la ville?*
      & within the town?
      c-t      *...hand tow keyboard.....*
9      *(0.8)
      c-t      *goes with her mouse on intExplo-->
10 C-T: OUI, i me dit qu'il e:st en plei::n dans
      YES, he tells me that he's in the middle of
11      la place en *fait.
      the square actually.
      *selects http://www.mappy.com/BtoB/mappy/v2/--->
12      (0.9)*
      c-t      -->*
13 MEC: oui mai:s quelle place? (.) y a *y a [y en a: y en a]&
      yes but which square? (.) the're the're [there are there are
      scr                                          *mappy appears-->
14 C-T:                                          [°e:::~::~:]
15      &dix, (.) de* places
      ten, (.) of squares
      scr      -->*

```

Extract 8 (from Mondada 2010)

When the call-taker announces a piece of extra information concerning her client's position (1), this is received by the mechanic with a delay (2) and a disclaiming of knowledge, produced in a series of three negative epistemic formulations (3-4), with the latter being unfinished. At this point the call-taker changes her body posture: until then, she was leaning towards the phone; from then on, she stands up, scratches her head with a thinking face, turns her gaze to the table covered with documents, and grasps a sheet of paper. This circular gaze on her desk – inspecting her work environment as a possible resource to mobilize for the solution of the case – ends on the computer: she extends her hand towards the keyboard and the mouse, engaging in another activity than the conversation, which continues in parallel fashion. While she announces the client's localization "right on the square" (10-11), responded to by the mechanic who reaffirms that there are plenty of squares (13), she selects a website, www.mappy.com, which proposes both itineraries and maps. Here, turning to the Internet and initiating a web search is done in a context in which the call is characterized by contradictions that appear not to be solvable through talk alone. In this context, the call-taker turns to an alternative source of knowledge that will help her to eventually solve the case. Multiactivity in this case is skillfully intertwined and coordinated with the ongoing main activity and is done in the service of its overall purpose. The call-taker orients to the local, social and sequential conditions at which the mobilization of the Internet is made relevant and even necessary – not only *during* but *for* and *as* her work.

These examples of parallel uses of new media within an ongoing social activity show the importance of considering the local ecology in order to understand the context in which the participants engage in mediated action and interaction. This focus on ecology reveals the normative and social conditions at which these actions are negotiated and treated as legitimate or not, as relevant for the ongoing activity or disconnected from it. It also makes possible a description of the embodied way in which shifting foci of attention and of action are locally managed. This teaches us important insights not only about the medium itself but also about the conditions of its use – its temporality, the modes of engagement, the practices of coordination with others, the enabling or obstructing role of the immediate environment, etc. All these factors contribute to a more comprehensive picture of the practices characterizing the use of new media.

3. Conclusions

In this paper we have presented some of the issues linguistics has raised for the study of new media, using a variety of methodologies as well as corpus approaches within the digital humanities. Given the enormous development of communicative

technologies and social uses of new media, it is not surprising that linguistics has been interested in studying them from the very early beginnings of the history of the Internet. Approaches and questions have moved from a focus on the new, non-standard, creative and subversive linguistic forms appearing within new media, to a focus on their actual, situated, socio-culturally positioned usages, including the ecology of these practices. This has produced a more comprehensive picture of forms-in-usage and usage-in-context.

Linguistics has contributed through both single case analyses and systematic analyses to the study of the rapid change of language, technological environments and communicative practices. It has shown that there is no homogeneous or general Netspeak, but that there is a multiplicity of practices, spread in very diverse communities, informal and professional activities, and local, national, international and transnational networks. It has been keen in observing these variations, showing how they relate to who is communicating with whom and in which setting. It has shown that grammar, lexis, and communicative practices are orderly organized even in cases where people adopt very creative, original and new language and modes of interaction – this order being always locally re-negotiated, re-defined and re-appropriated, even in more conventional forms of communication. Finally, it has also reflected on more subtle forms of interplay between technology and language, showing that their organization is not determined by technology alone, although it plays with possibilities and constraints offered by specific interfaces.

Present and future challenges are represented by the high speed change of these practices: this raises issues of how to document and archive them, how to locate them in precise time and space, how to develop relevant and efficient comparative studies. Web related practices constitute an extreme case of a field that visibly evolves faster than the attempts by scientific analyses to identify and fix them in a given picture.

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