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‘Where are you?’ Cell phones and environmental self-understanding amongst students

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Nowadays, the cell phone is omnipresent in our society, certainly amongst youngsters. Its presence, and the possibility to be in constant touch, have some profound consequences on our experience (of our selves, of others and the world) and self-understanding. It is important for educators and scholars in the field of education to understand such consequences and develop an awareness of how students relate to the world they inhabit. Starting from the observation that people often want to know the position of the party they call, this explorative study reports on an analysis of text messages of 10 participants and tries to couple this and related questions heuristically to an environmental self-understanding, wherein a particular environmental kind of positioning becomes a major need and/or obsession. Results point to a particular potential dealing with the present and the future.

Keywords: cell phones; SMS; students; where are you; environmental self-understanding

Introduction

Until late in the twentieth century, people had to stand still if they wanted to phone somebody because of the physical connectedness with a network of underground fibres and cables. Only a privileged few had the opportunity to have wireless conversations. In the last 20 years, mobile telephony has spread rapidly not only in Europe, which has the greatest adoption rate in the world, but in the rest of the world as well (Agar 2004; Ling 2004). In 2001, two thirds of the British population and 90% of school children owned a cell phone (Williams and Williams 2005). At the end of 2001, 80% of youngsters aged 15–24 used cell phones regularly in European Union (EU) countries (Kuure 2003, cited by Wilska 2003). Moreover, 2001 was the first year in which the number of mobile subscribers in the EU overgrew the number of main lines (Lumio and Sinigaglia 2003). In 2003, 83% of German high school students used a cell phone (Doring, Hellwig, and Klimsa 2005). In 2004, cell phones had a penetration rate of 85.8% in the EU, as compared to 56.9% in 2000. In May 2005, 85 million messages (SMS) were sent each day in the UK alone (Castells et al. 2007). Nowadays, 88% of American teen cell phone users are

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text messagers and half of them send 50 or more messages a day (Lenhart et al. 2010). Even children younger than 10 have their own cell phones nowadays, which they use frequently (Wilska 2003). Some authors have observed a tendency towards attachment and even addictiveness of teenagers to their cell phones (e.g. Vincent 2005; Wilska 2003). Katz (2005) found that teenagers can barely be without their cell phones: only 12 out of 102 participants could manage to abstain from using their mobile phone for 48 hours.

These numbers show only a part of the pervasiveness of the phenomenon: they can only point at the ownership of a cell phone, not at how it is used, let alone at the particular experiences the use of a mobile phone entails. One of those experiences frequently associated with the cell phone is the need to be in constant touch. Cell phones allow anywhere, anytime connectivity, a feature that apparently entails the need to be in constant touch. The evolution is twofold: on the one hand, the cell phone *allows* people to call anywhere, anytime (e.g. Agar 2004; Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006). On the other hand, people *want to* stay connected anywhere and anytime, a desire the cell phone can meet (e.g. Bauman 2003; Katz and Aakhus 2002; Licoppe 2007). These – here only hastily described – societal as well as technical evolutions have profound consequences, not only for ourselves, but also for the way we relate to others and to the world. We point briefly to four consequences that are discussed in the literature.

The first consequence concerns the blurring of the distinction between the public and the private sphere. Research (e.g. Caporael and Xie 2007; Cooper et al. 2002; Ling 2004; Srivastava 2005) suggests that people who are having a cell phone conversation in the public sphere, bring into this public sphere some kind of inconvenient ‘privateness’. Consider for example the amount of work-related calls that take place in a private context (e.g. during a dinner), or vice versa, the amount of personal calls conducted in a work context (e.g. a woman who asks her man to pick up the kids). At such moments, intersections between public and private roles are crossed. This crossing can become problematic, since people may want to maintain as much as possible a differentiation between the public and the private (Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006). The use of the cell phone in public spaces (e.g. public transport, restaurants, etc.) brings an activity which is conceived of as private (talking in a phone) into the public sphere. Cell phone users are at that moment part of *both* spheres (Hoflich 2003). Ling (2004, 134) speaks in this regard of ‘the colonization of the public sphere’. This expression itself is already an indication of the trouble we have with the use of cell phones in the public sphere (Katz 2003). An attempt to resolve these troubles can be seen in the ‘silent mode’ mobile phones possess nowadays (Schegloff 2002).

A second consequence, directly related to the first, is what Gergen (2002) defines as ‘absent presence’: when on the phone, we are present but at the same time rendered absent – ‘one is physically present but is absorbed by a technologically mediated world of elsewhere’ (227). Gergen argues that this absent presence diminishes the importance of face-to-face relationships and devaluates the depth of those relationships. Puro (2002, 23) states that:

As someone talks on the phone, one is in her or his own private space. Talking on the mobile phone in the presence of others lends itself to a certain social absence where there is little room for other social contacts. The speaker may be physically present, but his or her mental orientation is towards someone who is unseen.

In absent presence, we are literally simultaneously in two places (Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006; Poster 2005; Schegloff 2002). This gives rise to what Plant (2002) calls a 'bi-psyche'; a human mind that is capable of being at the same time in the 'real' and in the 'conversational' present. This absent presence is not by everyone seen as unequivocally positive. Hoflich (2003) for instance states that absent presence is not without risk; whereas others point at the intrusion of the public space (see above).

Thirdly, some scholars state that cell phones entail a change in the self, i.e. they promote a number of changes in the way users behave. For example, the 'yesterday' and the 'tomorrow' are fading; the only thing that matters for a cell phone user is the here-and-now (Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006). Meyrowitz (2003) states that: 'our forms of communication have been (...) altering the environments we live in, transforming them into new social places in which we are becoming new kinds of people' (97), i.e. more and more we are taking over characteristics of nomads. Chung and Lim (2005) claim that the temporality of cell phone users is becoming hybrid. They call this hybrid temporality 'mobilechronic', a merger of monochronic time use (linear time use wherein one strictly holds to certain schedules) and polychronic time use (cyclical time use wherein plans change rapidly).

The fourth and last consequence we wish to point to here concerns a different way of maintaining communications because of the shift from domestic to mobile phones. If one compares mobile with domestic phones, literature suggests that conversations are becoming shorter but more numerous. They concern more and more practical topics, where the act of calling becomes more important than the content of what one is saying (Johnsen 2007; Licoppe 2007; Puro 2002).

The desire for constant touch we mentioned in the beginning of this article is especially something that has been observed in youngsters. Young people are belonging to the group of the most enthusiastic mobile phone users (Srivastava 2005). The construction of their personal identities can be expected to be mediated by these mobile devices. At the same time, youngsters do not form one homogeneous monolithic group of users and different categories can be distinguished (Green 2007). Young people text message a lot (e.g. Proitz 2005). Almost all own, and actually use, a cell phone (see above). This makes them prone to a phenomenon we wish to take as a point of interest in this paper, i.e. the fact that people ask the question 'Where are you?' very frequently in mobile phone conversations and text messages (e.g. Ferraris 2006; Laurier 2001; Plant 2002; Puro 2002). The attempt here is not to give concrete reasons *why* people ask this question so much, since other research already discusses that issue (e.g. Cooper et al. 2002; Laurier 2001). Rather, what we want to do in this article is to elaborate upon relational issues that come into play when young adults use cell phones. In other words, we want to investigate not only how young adults understand themselves, but how this self-understanding influences relations with other persons as well.

Summarising, a lot of literature is available on the impact of the cell phone on how youngsters experience themselves, how social relationships are influenced by this mobile device, etc. In what follows, we want to shed light on what it means for teachers to deal with youngsters who are using cell phones: how do young people behave in their private lives, how do they understand themselves and how do they relate to other people, how do they deal with issues such as 'meeting hours', 'appointment times', etc. More particularly, we will elaborate on a thesis put

forward elsewhere about how people seem to see themselves and how they behave in current societies. The thesis states that people are characterised by an environmental self-understanding nowadays (Simons and Masschelein 2008). We will argue that the 'Where are you'-question can be seen as an expression of this understanding and report on a small-scale empirical research that took this environmental self-understanding as a heuristic point of departure. Specifically, we investigated the content of text messages students saved on their cell phone for a period of one week. Those messages were put into several clusters and sequentially analysed. In a conclusion and discussion, we elucidate these results, and analyse whether and how those clusters relate to the environmental reference, and how this might be of interest for the educational realm.

Historical vs. environmental self-understanding and the cell phone

Our point of departure is a thesis about a transition from a *historical* self-understanding towards an *environmental* self-understanding, that is, regarding oneself as part of an 'environment'. According to this thesis, self-understanding should be conceived as:

[A] mode of seeing and a way of speaking (about ourselves, others and the world) that emerges in a particular moment and context, and that gradually becomes the (evident) horizon of what we do and think. (Simons and Masschelein 2008, 689)

The transition from 'the historical' to 'the environmental' is an attempt to explore and describe from a particular viewpoint what is called in more familiar terms the transition from modernity to post-modernity (Simons and Masschelein 2008, 689, see also Lyotard 1979). The thesis is an attempt to grasp ways in which people behave, how they conduct and see themselves and how they position themselves in the world they inhabit. It is, furthermore, an attempt to unveil things that are nowadays taken for granted, things that are somehow more a matter of indifference than a matter of central interest (Simons and Masschelein 2008).

Historical self-understanding, then, refers, according to Simons and Masschelein, to an experience that privileges a particular conception of time. Time is being framed in terms of 'historical development/progress/accumulation'; as an ever-augmenting though irreversible line that progresses from an obscure past towards a more enlightened future. This conception of time as historical accumulation is a conception typical for modern societies and implicates seeing oneself as being part of this ever-ameliorating process (Latour 2004; Lyotard 1979). Besides this specific dealing with time, historical self-understanding is also characterised by a particular conception of space. Space here is being conceived as location and extension, with clearly delineated boundaries that may shrink or enlarge. The (modern) idea of an 'institution' (for instance, the school, the museum) articulates this self-understanding very clearly: institutions can move (to a different building), expand (towards a bigger building) or shrink (towards a smaller building) – but whatever the case, an institution coincides with the building it is housed in. Hence, in this respect the self is understood in terms of being part of a historical process and of spatially distinct institutions. The typical question in this historical-institutional self-understanding is 'Where are we going to/heading towards?'

Environmental self-understanding instead refers to an experience that privileges space and being objectified as ‘environment’. The present is not regarded here as situated between past and future, but as the ‘moment’ or the ‘here-and-now’ where the past is available (or not) as a resource and where the future is ‘produced’ based on a project and taking into account available resources. This entails a particular experience of finitude (in contrast with the experience of infinite progress), an experience of being permanently in a condition with limited resources (Deleuze 1986, in Simons and Masschelein 2008). This particular kind of environmental-momentary self-understanding is articulated by the concept of an ‘opportunity’; of seeing probable favourable possibilities in a space of limited resources. Space is thus conceived of as an *environment* populated by constantly shifting and mobile inhabitants, concepts, structures, and so on (Urry 2000). Regarding oneself as being part of an environment furthermore correlates with the experience of wanting to know one’s position (and opportunity) at each moment. The focus on (historical) orientation is replaced here by an obsession in which the individual needs to (re)position herself time and again. The prototypical object of use in this understanding is the global positioning system (GPS). Indeed, the GPS constantly gives an answer to the determining concern *where do I stand in relation to others* (on this concern, see e.g. Larner and LeHeron 2004). In other words, mechanisms of feedback and self-assessment function as a kind of permanent ‘global positioning’ – permanent feedback information for permanent orientation (consider in education, for instance, the current practice of benchmarking at the European level). The ideal situation then is the situation where one disposes of what is called ‘concurrent feedback’, that is, feedback that one receives during (and not after) one’s performance. A lack of feedback on the position of other inhabitants positioned in this environment eventually leads to a loss of information regarding one’s own position and, consequently, to disorientation. Feedback needs to pour in on a permanent basis, for a constantly changing environment requires a constant re-measuring of one’s own (relative) position in the present. Thus, regarding oneself as part of an environment correlates with a desire to know one’s position at each possible moment.

To this effect, the above-mentioned ‘Where are you’-phenomenon is exemplary. Researchers have noticed that people on the cell phone ask each other this ‘Where are you’-question pretty often. For example, Ferraris (2006) notes that a lot of conversations on the cell phone start with, or even limit themselves to, this question. Plant (2002) goes so far as to call this question the question that defines the mobile age. Other authors (e.g. Green 2007; Proitz 2005; Rice and Katz 2003; Williams and Williams 2005) just notice that there are some sorts of calls and/or messages that contain this question. Laurier (2001) states that asking questions about someone’s location is something most users of cell phones are aware of. He concludes that there is no unequivocal answer to the question why people say where they are. Other articles attempt to give an explanation for the numerous uses of the question at stake on a more theoretical level. Here, the explanation provided always points to the fact that a necessary context element is missing: when on the fixed phone, you exactly knew where the one you called was (on her phone, of course), while on the cell phone, there is no or hardly any clue that can offer us some hint concerning the position of the party we call. It has been suggested that this is precisely the reason why calling parties often feel compelled to provide each other with explicit location information (e.g. Cooper et al. 2002; Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006; Golden 2007).

A problem here is that research on this point is – generally speaking – somewhat ambiguous: either it gives an explanation without giving the appropriate underlying empirical foundations, or it is something that simply ‘pops out’ of the data, but that the researchers in question do not deal with further. Some research, however, tries to build bridges between these two, most of the time separated, fields of research – bridges that in our point of view are often missing when discussing the ‘Where are you’-question (e.g. Weilenmann 2003; Weilenmann and Leuchovius 2004). These investigations mainly use interview data. In what follows, we will propose a methodological technique that allows for taking the notion of an environmental self-understanding as *heuristic* point of departure by taking a look at the text messages young people store on their cell phones. This investigation, then, is not about analysing the kind of language people use in SMS (in contrast with e.g. Grinter and Eldridge 2003), but more about analysing the precise *content* of the messages themselves.

A heuristic methodological approach

In what follows, we take a more heuristic stance towards the thesis advocated. With this heuristic stance, we mean that we consider the notion of environmental self-understanding as a concept that opens up a perspective to look at the way young adults understand themselves, viz. the environmental reference is considered here as a logic of different relations by which subjects (and the significance of locations) are constructed. Environmental self-understanding, then, is not used here as an interpretation of the times we live in or an answer that tries to capture exactly how postmodern societies are characterised. Rather, we use the notion as a means for analysing which references (to the self or to relations with others in the world) come to the fore when focusing on the role of the environment in mobile communications. Thus, to take environmental self-understanding in a heuristic sense implies considering environmental self-understanding as a concept that broadens our view and discloses a new perspective to look at different ways young adults understand themselves. This perspective, then, allows for empirical openness on the one hand, but it also allows us to pose *further* questions about which kind of young adults enter (higher) education nowadays on the other. To this effect, and because of the already existing strand of research that focuses on the analysis of cell phone conversations (e.g. Emberson et al. 2010; Johnsen 2007), we decided to scrutinise the text messages (SMSs) that users of cell phones send almost every day (Lenhart et al. 2010).

Text messages offer an account of the factual content of what is being transmitted that is more detailed than the information that can be obtained by means of interviews – interviews being more apt to focus on the *experiences* that go together with the usage of a particular new technology (e.g. Decuyper and Bruneel forthcoming; Kvale 1996). As already stated above, however, and maybe somewhat surprisingly, research that investigates the use of text messages tends to focus most of the time either on the establishment of interpersonal *networks* (e.g. Igarashi, Takai, and Yoshida 2005) or on the *structure* and/or the *language* used (e.g. Grinter and Eldridge 2003). Research on the *content* of text messages is to our knowledge still rather scarce (but see Harper, Palen, and Taylor 2005). In trying to grasp the precise content of text messages, we investigated SMS messages of young adults all involved in some form of higher education. The rationale behind choosing college

students as respondents is their high adoption rate of technology in general (see, e.g., Pempek, Yermolayeva, and Calvert 2009) and of cell phones in particular (see above). Concretely, the sole criterion for respondent selection was being a student involved in higher education. This random sampling resulted in 10 respondents, each aged between 18 and 23, and following higher education in either a university (seven respondents) or an institute for higher education (three respondents) in Flanders (Belgium). Five respondents were female, the other five male. In order to be able to analyse the text messages stored on the respondents' cell phones, the respondents were asked beforehand not to delete messages (in- and outgoing) received and/or sent in the last week. Thus, data were collected during a period of seven consecutive days. A mutual consent form was provided in order to guarantee the respondents that all data gathered would be anonymised. As a matter of fact, though every respondent agreed to store the in- and outgoing messages of the last week on her/his cell phone, this turned out to be unmanageable for more than half of them.¹ For that reason, we will not distinguish here between in- and outgoing messages, but treat them all as plain 'text messages'.²

In sum, the monitoring of the respondents' text messages resulted in 494 messages and those were transcribed by one of the authors. Messages were analysed by means of a three-phase coding system, with a qualitative-explorative approach in mind. In a first phase, all messages were processed several times in a search for different patterns and categories. At this point no definitive codings were effectuated, since the prime purpose here was to become familiar with the data. Nevertheless, some initial emerging patterns were noted. In a second phase, we tried to formalise the patterns found by establishing different clusters of text messages (and with the environmental reference in mind). At this point, it is important to remark that there was no restriction on the amount of clusters an item could be put in; some messages were put in two or three clusters at once. The guiding principle here was that all three authors coded all messages, and that this was done until a mutual agreement was achieved (cf. Kelchtermans and Ballet 2002). In a third phase, all messages and categories were analysed once again, looking for inconsistencies or flaws. This phase too was considered as finished when final agreement amongst the three researchers was achieved. One remark before we proceed: as stated already above, this study has to be considered as qualitative-explorative. Our main aim here is not to obtain representative results for any population whatsoever, but to get grips on a phenomenon that currently lacks empirical attraction. Thus, the results reported here can be interpreted only in an indicative sense. For this reason, we do not put forward any hypotheses here either. Our starting point in the processing of the obtained data was just circumspection for text messages which contained references to the self and the world. In sum, two main questions were guiding: (1) do young adults ask each other 'Where are you'-questions via SMS; and (2) are there other elements that refer to the self or the world when focusing on environmental issues?

Results

In this section, we report of six clusters that were discernable in the diverse pool of text messages: a cluster with messages dealing with the 'Where are you'-question; a cluster containing text messages that posed or answered the question 'what are you doing'; a third cluster pointing to last-moment modifications of appointments; a fourth one dealing with the reporting of near events; and finally, fifth and sixth

clusters containing messages pointing to future events (temporally situated near to resp. far from the present).

A first observation is that, on the one hand, all the respondents' in- and out-boxes contained messages that answer the 'Where are you'-question. There are many examples of these messages, e.g.:³

'Ouch, not funny, I am in a warm car right now. See you soon X' (respondent 1)

'I'm still at your home' (respondent 3)

'I'm at the fair, now just ten minutes walking away from my apartment, then eat something and starting to work for school (...)' (respondent 3)

'I'm on my way to school right now' (respondent 3)

'In the library, why?' (respondent 6)

'I'm in Mac Donalds. Why? (...) I just started drinking juniper. I am going to kiss you (...) okay? I love you' (respondent 7)

'What do you have to do exactly? I'm now with James in Antwerp, but I have to get back to Brussels soon in order to take care of Tiffany. Maybe I can come over with her?' (respondent 9)

The amount of information provided differs from text message to text message, but these messages all give an answer to this 'Where are you'-question, and, thus, position individuals in an environment. On the other hand, the respondents themselves also received this 'Where are you'-question, e.g.:

'Are you already on your way home?' (respondent 2)

'Where are you now?' (respondents 3, 6, 7 and 9)

'Are you home? If so, then I come to you right now with your mashed potatoes. If not, I'll go to the shop first and come thereafter, but I suppose you have classes then?' (respondent 3)

'Are you by any chance still in Leuven?' (respondent 6).

Here too, the question can be formulated very briefly or somewhat more detailed, but it is clear that this question and the answers to this question are, regardless of how they are formulated, present and can as such be found in the text messages of the respondents. Messages like this formed a first cluster, which we denominate here as the 'Where are you'-cluster.

Other messages (or parts of messages) contained some other reference towards the respondents themselves or the people they are involved with. These messages pose or answer questions like 'What are you doing right now?' and 'What are you going to do right now?'. This 'What are you doing'-cluster contains messages like:

'I have to get some money first, just a second' (respondent 2)

'Can you imagine? We are marking certain passages in the syllabus already for two hours now, oh my god' (respondent 2)

'I am now watching Friends, I think it'll be finished at 8.15, after that, I come (...)' (respondent 3)

'Hi sweetheart what are you doing? How was your week? Did you hear something of Walter?' (respondent 3)

'Haha. What are they saying there? What are you going to do now? Kiss' (respondent 5)

'Thank you very much, sweet Andy, we are on our way to Brussels now' (respondent 8)

'Nope, it was too late to go for a run. My work is finished, I just took a shower, right now I'm going to play some guitar and read a little bit (...)' (respondent 9)

This type of text messages contains at least as many self/world references as the first cluster does, but in another way: even though there is no 'where' in the question, it is obvious that the answers on this question entail an indication of positioning in a certain environment. This indication, however, is more vague than the indication the 'Where are you'-question gives: in messages such as 'we are on our way to Brussels now' or 'I am watching Friends', the receiver of the text message cannot know exactly where her counterpart is. But what she does know at least is that the sender of the text message is heading toward Brussels (example one), or in front of a television (example two). This in turn strongly indicates that the respondent will be in a car or train (or some other vehicle – case one) or in *her* house, watching TV (case two). The certitude respondents obtain with text messages type cluster two is more uncertain, but nevertheless has a strong linkage with positioning in a certain space.⁴ On behalf of the second cluster, it should be remarked that this cluster was, together with the fifth cluster, the most prevalent.

Other groups contained text messages that dealt with appointments that were modified at the last moment. Consider for example text messages like:

'Give me another five minutes' (respondent 3)

'I can meet you earlier. Do you want to pick me up or do we meet somewhere?' (respondent 3)

'I'll be fifteen minutes later. I have to call the doctor. Where do we meet? Goodbye' (respondent 6)

'I probably won't come because he's going to play poker with Ed so...' (respondent 7)

'Oops, I won't manage to come to class. I'm in the store right now ☺. I'll give you the syllabus tomorrow then' (respondent 10)

These messages all contain a spatial positioning: they report of a place where one is supposed to come to, and the inability to be at that place in time, or worse,

to come to that place at all. This gives (orienting) *feedback* – either directly or indirectly – of where the contact person is situated at that moment, i.e. almost at the agreed place, or not at all there. We wish to call this cluster ‘last-moment modifications’.

A fourth cluster contained items which reported of events that happened a short time before, or, otherwise, that were going to happen as good as instantly. This cluster, which we call the ‘reporting of near events’-cluster, does not contain appointments, but only things that just happened *or* that were going to happen to a certain person and that that particular person apparently and often spontaneously wanted to share with someone. Examples of such items are:

‘Something worse happened here: the whole street doesn’t have any electricity anymore. There is a defect somewhere, which they are investigating right now’ (respondent 2)

‘I just finished my exam’ (respondent 2)

‘I really liked it with you last night’ (respondent 3)

‘Tess swallowed something (...), and we had to go to the emergency. Everything is OK now. Regards.’ (respondent 3)

‘I just went to the library for some study, good isn’t it? (...) Ciao!’ (respondent 6)

‘(...) Yes my paper had to be finished, because we’re going to form groups today. As expected, Robert hasn’t even started with the writing of his part, unbelievable! See you soon and good luck (...)’ (respondent 8)

‘I have an appointment at 2 o’clock with the boss of the concert hall, to get work’ (respondent 9)

‘I will text you a message this evening to tell you how it is in Antwerp (...)’ (respondent 9)

As can be seen, the items in this cluster often share a characteristic with the second cluster, i.e. the spontaneous giving of one’s position (for example ‘I just went to the library’, ‘how it is in Antwerp’, ‘to the emergency’). In sum, the giving of one’s position is thus not only something that one does when one is asked to, but also something people just give spontaneously as a piece of information/feedback to each other.

The reader may have noticed that all four clusters discussed hitherto deal with ‘the present’ as such: all four clusters explicitly deal with items that in some way or another cover present situations (clusters one, two and three) or, if not so, situations that will be dealt with or have been dealt with just a few moments from the present (cluster four). The ‘present’ in these clusters can be regarded as *actual potential*: despite its actuality, it is always potential as well – things are not sure, prone to negotiation/modification, etc., and this until the (very) last moment.

Not all data, however, dealt with ‘the present’, since fifth and sixth clusters emerged (see Figure 1). These two clusters, as we will show right now, deal more with the future – a future that is conceived as *potential actuality*. The fifth cluster

Figure 1. The position of the clusters in relation to the concepts of potential actuality and actual potentiality.

contained messages that were intended to arrange an appointment the same day. Examples of such items are:

‘Do we meet at the student restaurant? Come whenever you can. . . I’m there in about ten minutes’ (respondent 2)

‘(. . .) I’m going to let you know when I take the train this night and at what time I’m gonna be at home. We can do something thereafter, if you like?’ (Respondent 3)

‘Can I come over to sleep with you tonight?’ (respondent 3)

‘I arrive at 19.25, are you gonna pick me up? Kiss!’ (respondent 4)

‘Paul, I’m going to work in the library this afternoon. Are you free? If so, you can accompany me.’ (respondent 6)

‘Eve, you can come get a cup of coffee if you want’ (respondent 8)

This cluster is distinctive from the other clusters discussed up till now, containing elements of a different kind than the ones discussed thus far. First of all, since the appointments are made the same day, the elements in this cluster possess an inevitable spatial positioning feature: some way or another, one will have to arrange a place of meeting that cannot be seen as belonging to a (distant) future, i.e. it still somehow belongs to the here-and-now of today’s day (e.g. ‘do we meet at the student restaurant’, ‘in the library’). Secondly, in a certain sense, a future is shaped in these messages – analogous to the example of the fixed telephone we gave already (e.g. ‘at 19.25’, ‘tonight’). Thus, in this fifth cluster, one can see a merger of spatial and temporal features: one positions oneself in a certain place, but also in a certain time, a time that we want to call the *very-near-future*. This future, however, is never experienced as fixed (or defined) – it remains always a potentiality that can be fulfilled, but does not have to be so, it constantly remains, so to speak, in suspension, it is a potential actuality: if the future turns out otherwise than planned, or if the appointments made get cancelled, modifications are on their way via text messages (see third cluster). To a greater or lesser extent, this is equally true for the appointments made a bit further in the future than only the same day. Indeed, it is hard to define what this ‘very-near-future’ exactly is and, more specifically, how it could be defined and delineated. Items like:

‘No connection, it was just to tell you that I won’t make it in time for class tomorrow, will you keep notes?’ (respondent 3)

‘Saturday at 16.30 works for me. Just say where! Xx’ (respondent 5)

‘Are you coming for a swim Thursday night?’ (respondent 6)

‘(...) I see you tomorrow! And do you keep your Sunday evening free for you and me?’ (respondent 7)

are prone to the same analysis just described, with this remark that overall, the farther away in the very-near-future, the more vague the messages, the more a focus on time and the less an emphasis on space (e.g. ‘Saturday at 16.30’; ‘Sunday evening’). Thus, there seems to be some kind of continuum here in which the ‘space over time’-emphasis is gradually replaced by a ‘time over space’-emphasis. With a greater emphasis of time over space, the future in this respect can be seen as the fulfilment of a potential actuality and hence always unsure – it *can* become actual, but it never has to. We will name the group of items dealt with here the ‘very-near-future’-cluster.

This is even more so for the sixth and last cluster we wish to discuss here, a cluster that is even more representative of ‘potential actualities’. This group of items contained messages that reported of events and/or appointments made in the far future, e.g.:

‘(...) I have a little more time the coming weeks, just let me know when you have time’ (respondent 2)

‘Dentist Thursday 30th of December. Does that suit you? If not, another possible date is 17th of January.’ (respondent 3)

‘Hi! (...) are you going to the saviour training in March? If you go then, me too. X’ (respondent 6)

‘I’ll have to start working on my portfolio this holiday. By the way, what are you going to do on New Year’s Eve?’ (respondent 8)

In this cluster, which we would like to call the ‘far from present’-cluster, time is the main ordering principle. This does not mean, however, that elements pointing at time are the only ones important here. What count in this kind of message are the ordering and shaping of the future – going to the dentist on that particular date, following a training in that particular month, doing certain things on New Year’s Eve, etc. – and the positioning of the individual in this future.⁵ But, here as well, the future is never sure – appointments are not fixed, can be modified constantly and over again (see cluster three), are always hypotheticalal, indeed, potential actual.

Conclusion and discussion

This article reports on a small-scale explorative study. The data presented in this study are limited. A larger set of data is necessary to obtain more than the initial observations we made here. Moreover, the limitation of investigating only text messages inevitably entailed some drawbacks. For instance, some text messages could not be interpreted due to the lack of contextual information. It is also possible that respondents removed certain messages, which could misrepresent the results

obtained. Another limitation of this study is that it only looked at the messages the respondents received during the period of one week. Investigating a longer period of time could possibly reveal other and/or clearer patterns, as might investigating another target group (pupils instead of students, for instance).

When we take a look at the results and the different clusters, it is striking to see first of all that the 'Where are you'-question is a frequent phenomenon in our data as well. This is in line with previous research that, however, either uses voice-based data or offers theoretical analyses (e.g. Ferraris 2006; Laurier 2001; Puro 2002; Weilenmann and Leuchovius 2004). In the emerging of different clusters of items, we also found some other overlap between voice-based (conversations) and text-based (SMS) communication via cell phones. For instance, cluster three (last-moment modifications) is a phenomenon researchers are familiar with already as well. Ling and Yttri (2002) have called this micro-coordination. Chung and Lim (2005) on the other hand referred to this phenomenon as polychronic time use. Also in the case of the second cluster (what are you doing?), our findings coincide with previous research (again effectuated by processing conversations). For instance, Weilenmann (2003) too found that the question 'What are you doing?' is a frequent question which has sometimes the effect of getting a spatial location as (part of) the answer. In sum, it seems as if text- and voice-based communication on the cell phone give way to at least some concurring results.

Secondly, we want to discuss the clusters found in relation to the heuristic function of the environmental self-understanding we proposed. In other words, which categories have been found and how do they relate to the environmental reference (Masschelein and Simons 2007; Simons and Masschelein 2008)? What is remarkable is that none of the messages in our sample seemed to refer to past events that were further than just a few moments away. Only SMS messages dealing with the here-and-now (clusters 1–4) or the (near) future (clusters 5–6) were retrieved in the dataset (cf. Garcia-Montes, Caballero-Munoz, and Perez-Alvarez 2006). Thus, SMS messages do not seem to be a medium used for communicating about things that happened previously. On the contrary, the respondents were more apt to communicate about things happening in the present. This is exemplified by for instance the clusters 'Where are you?' and 'What are you doing?'. In such clusters, one positions oneself in an environment – an environment that is, by the very nature of the cell phone, in constant movement (Cooper et al. 2002; Golden 2007; Plant 2002; Urry 2000; Weilenmann 2003; Weilenmann and Leuchovius 2004). The third cluster, last-moment modifications, points to a particular way of orientation (towards oneself, others, the world): one states that one is not (yet) at the agreed-upon place. Even when people give a temporal indication in this respect (e.g. 'I'll be fifteen minutes later'), this can be still be considered as a way of spatially orienting oneself, for this is just some reporting of the here-and-now, i.e. at that moment, one is just 15 minutes away from the *destination* (on this concern, see e.g. Ling and Yttri 2002). The fourth cluster ('reporting of near events') also points to a positioning or orientation, see for example the *spontaneous* giving of one's position that certain messages in this cluster contain. These four clusters deal with time as an actual potentiality: actual, because of their situatedness in the present (it is a possibility here and now); potential, because of the fact that the present is never stable (the here-and-now can change). Decisions can be made and revised on the spot, in a constantly moving field of changing 'opportunities'. In contrast with the first four clusters, the fifth and sixth clusters deal with the future – as the articulation of a

potential actuality. Both the fifth (very-near-future) and sixth (far from present) clusters point to a future considered to be possibly, or potentially, actual. Whether we deal with time considered as actual potentiality or as potential actuality, this time seems to acquire, in several respects, a *volatile* character: time in the (very-near-) future (but in the here-and-now as well, cf. cluster three) is prone to constant negotiation. It is malleable, and always unsure – indeed, it is always potential. A modification of time is permanently just one text message away (e.g. ‘I’ll be fifteen minutes later’ – cf. Ling and Yttri 2002).

Last but not least, we want to address some points of interest concerning the educational realm and some consequences the results of this research entail. How do youngsters and young adults behave in a world that is characterised more and more by a lot of technological features that enable them to be in constant touch? Such understanding is of particular importance not only for parents, but for teachers and educators as well. Indeed, people in the field of education can all benefit from a greater insight into how youngsters tend to handle a rapidly changing world. This study suggests that young adults seem to cope with this world in a rather provisional way. The notion of ‘potentiality’ is our attempt to grasp this provisionality: whether dealing with the present or with the future, appointments, agreements, etc. seem to be always potential. They all can take place eventually, but this never seems to be fully guaranteed. In this respect, it would be very interesting to investigate whether this attitude towards the present also applies for educational matters. If young adults perceive the present and the future as something that can always change and as potential, could it also be that their attitude towards education or their expectations about future prospects alter as well? For instance, do students nowadays perhaps abstain from the idea that the future will *surely* be better than the present? In this respect, one might hypothesise that students may have some hesitations concerning the omnipresent lifelong-learning projects nowadays, because one is very uncertain about what the future might bring (e.g. Bansel 2007 – see in a more general vein Pongratz 2009). Nevertheless, it would be beneficial to fully scrutinise this perception of present *and* future (and basic perceptions of living in an environment) in the coming years. Furthermore, one could also think about the precise link and remarkable resemblance between the constant need for positioning and feedback in cell phone use (see esp. first four clusters) and the constant need for and focus on feedback in education (Hattie and Timperley 2007; Lerner and LeHeron 2004; Simons 2007). Is this resemblance mere coincidence, or are students nowadays more and more instructed and constructed to become subjects that can only exist and be unique by grace of (the position of) others? Thoughts like this might be fruitful guidelines for further research.

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Notes

1. The main reasons they gave were either the lack of memory, which apparently compelled them to delete messages of the outbox rather than messages stored in the inbox, or the inability of some cell phones to store sent messages (and instead just storing a report of these sent messages).

2. The presupposition is here that in- and outgoing messages are, for our interests, similar enough. This reasoning is justifiable because: (1) the inboxes of people consist *an sich* of the *outgoing* messages of other people, and (2) we explicitly do not want to distinguish different patterns among in- and outgoing messages, but rather unveil clusters that apply to all messages at once.
3. All the text messages are translated as accurately as possible from Dutch. Names and places are always pseudo-names and pseudo-places, in order to guarantee the privacy and anonymity of the respondents in question.
4. What is very remarkable with this group of text messages is that they are often sent spontaneously: without someone having asked, one often gives a certain hint of positioning toward another party.
5. A gradual decline in the prevalence of the last-mentioned items was noted. Text messages that deal some way or another with appointments made or modified the same day are more frequently found in in- and outbox, than appointments in the very near future which, in turn, are more prevalent than items which deal with a further future and/or past (same day: 66 out of 494 items; very near future: 34 out of 494 items; further future and/or past: 16 out of 494 items).

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