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Social Structures in the Era of Networked Communication: *Youth and the reshaping of mediation*

Vera Araújo, Gustavo Cardoso and Rita Espanha

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Abstract: During the last decade, we have witnessed a vast change in the media landscape. A change, not only due to technological innovation in mediation devices themselves, but also in the ways users have chosen to socially domesticate them, and consequently, how they have built new mediation processes (Cardoso, 2008).

Change in mediation has been, during the last years, the focus of the analysis of many scholars in the social sciences, from the legal perspectives subscribed by Lawrence Lessig (2004), to the economic analysis proposed by Yochai Benkler (2006), to the cultural analysis of Fausto Colombo (1993) and to the overall encompassing theory of the Information Age developed by Manuel Castells (2000). As argued by Cardoso (2008), we have gone beyond a communication model based in mass communication and into a communication model based in networked communication. A communicational model shaped by three main features: 1) Communicational globalization processes; 2) Networking of mass and interpersonal media and consequently, networked mediation; and 3) Different degrees of interactivity usage (Cardoso, 2008).

In this paper, and having the networked communication model as a frame, we propose a combination of diffusionism and domestication perspectives in order to analyse the emergence of social structures in Internet communication networks, focusing the case of young people in Portugal. Which are the key uses of Internet, and how have these uses been changing for the years? How are young people using the Internet to reconfigure the creation and maintaining of social ties?

Based on our previous research and literature review, we are departing from the hypothesis that there has been a diversification of Internet usages in the last years in Portugal, with a special focus on communication and social usages, in the context of the Network Society. This resulted in a reconfiguration of social ties, linked not only to the PC platform and to the Internet, but also to other devices such as mobile phones.

Keywords: Mediation, Social Network Analysis, Domestication theory, Networked Communication

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1. Introduction

Networked Communication Society: an always on continuous dialogue

During the last decade, we have witnessed a vast change in the way people interact and communicate. A change, not only due to technological innovation in mediation devices themselves, but also in the ways users have chosen to socially domesticate them, and consequently, how they have built new mediation processes (Cardoso, 2008a).

Change in communication mediation has been, during the last years, the focus of the analysis of many scholars in the social sciences, from the cultural analysis of Fausto Colombo (1993) to the overall encompassing theory of the Information Age developed by Manuel Castells (2000). As argued by Cardoso (2008a), we have gone into a new communication model shaped by three main features: 1) Communicational globalization processes; 2) Networking of mass and interpersonal media and consequently, networked mediation; and 3) Different degrees of interactivity usage (Cardoso, 2008a). That is to say, our society's communicational model is shaped by the combined leverage of worldwide communicational globalization processes, together with the networking of mass and interpersonal media by the media users (namely, in what refers to communication, the Internet and cell phones), and consequently, the rising of networked mediation. The organization of uses and networking of media within this communicational model seems to be in direct connection with the different degrees of interactivity usage that our current media allow.

The communicational model generated in the informational societies, where the prevailing social organization model is the network, is that of *networked communication*. Networks of technologies (namely cell phones and the Internet) and the way people use them, and network of mediation processes. This communicational model does not replace the previous models, but articulates them, producing new forms of communication and also enabling new forms of facilitation of individual empowerment and, consequently, communicative autonomy (Cardoso, 2008a; Castells, 2000).

Examples of this new communication model can be found if we simply look at our own daily routines. Pew Internet for instance, makes reference to the "Networked Family", suggesting the Internet and cell phones have become central components of the organization of the modern family communicative routines (Pew Internet, 2008). *Messenger* and other Instant Messaging (IM) network systems are increasingly being used to schedule one's daily activities and social life, as a professional tool, and it also acts as a meeting place itself. In fact, it is now frequent to say "I met X on messenger" as one would say "I met X in the local coffee house", or simple to send a SMS to a group of friend arranging a *Messenger* reunion at a given time. On the other hand, Social Networks such as Hi5 (the most known in Portugal according to e-generation 2008) are being used to keep friends aware of one's life, and to check on what other people have been doing. And it is now possible to access IM or Hi5 while on the move, through cell phones, as it is a common practice to send SMS via the Internet, these two technologies becoming more and more interconnected (Myiata, 2005).



As a consequence, some concepts initially developed in the ambit of the analysis of the mobile phone and its impacts in society are now being broadened up to the Internet and its communicative features. This is the case for example of the concept of *always on society* (Ito, 2004), *perpetual contact*, (Katz e Aakhus, 2002) or *ultra-connectedness* (Myiata et alia, 2005). Although these different concepts have specificities, they all refer to the “permanent connectivity feeling” communication networks on the Internet and mobile phones give us. That is to say, we are now used to the connected state being the default, and the disconnected state is the unusual one. If someone doesn’t answer his mobile for a whole morning, its familiars or friends become worried wondering what could be wrong for one not answering the mobile, while maybe it was simply forgotten in the car. That is to say, not only are we now part of an *always on society*, but there is also a growing expectation of reciprocity, as one is supposed to answer when his phone rings or when his messenger beeps, allowing the permanent virtual presence of others (Plant, 2001; Licoppe e Heurtin, 2002).

This implies a profound change in the way people interact. There is a now a feeling of an “ongoing dialogue”. For instance, a couple goes to the movies, parts away, and then text each other before going to sleep. A person passes the day at work, then goes home, turns on messenger and keeps discussing works issues with its working colleagues. Besides living in an *always on society*, there is also an emerging era of *continual communication*, where people physically part away but the dialogue keeps going on. The social networking phenomenon for instance is not really new, as it harks back to clan culture and the desire to join social groups. What has changed, however, is that the dialogue has turned into an *always-on continuous conversation* (Boyd, 2008).

IM allows users to manage a contact list and to visually see the presence of others, and each member status (busy, away etc.). It is this presence awareness that reinforces the idea of constant connectivity. The explicit will of perpetual contact seems to be the reason for the great success of Internet communication networks. Answering the question “what are you doing”, users update their profile sharing ideas, feelings and everyday life with their contacts.

In fact, before the advent of the cell phone and communication networks in the Internet, there was no technologically mediated equivalent of regular meetings, typical of small communities and villages, where the information was passed from "backyard to backyard over the fence" (Fox, 2001) and where people felt permanently connected with their closer social network as a consequence of being physically very close. IM networks, Social Networks or Mobile phones act therefore as a recreation of the patterns of pre-industrial communication: "We are using space-age technology to return to stone-age gossip." (Fox, 2001)

In this paper, and having the networked communication model as a frame (Cardoso 2008a), we will try to do an exploratory analysis of technologically mediated communication patterns of young people in Portugal. Our specific research questions are:

- What is the value of communication in our days? How are the Internet and the mobile phone valued in comparison to other technologies by young people?



- How is the way young people use Internet and Mobile Phone communication networks reconfiguring the creation and maintaining of social ties? What are the specificities of Internet and mobile phone communication networks?

- How does the use of internet communication networks and mobile phones contribute to the always on society and to the feeling of continuous communication? Who is always on?

Based on our previous research and literature review, we are departing from the hypothesis that there has been a diversification of Internet usages in the last years in Portugal, with a special focus on communication and social usages, in the context of the Network Society. This resulted in a reconfiguration of social ties, linked not only to the PC platform and to the Internet, but also to other devices such as mobile phones and contributing to the development of an *always on* society. In order to confirm or reject this hypothesis, we will analyse a set of empirical data from national and international sources, as well as the results of an extensive survey *e-generation 2008* (Cardoso, Espanha and Araújo, 2008) focusing specifically on youth (8 to 18 years old; n=603). This survey is the second edition of a project OberCom (Portuguese Media Observatory) has been developing since 2006 in collaboration with ISCTE (University Institute of Lisbon).

2. The consolidated centrality of Communication

If we look at technological-based studies, the top ten of the most researched expressions on the Internet in Portugal in 2007 includes 5 communication-related expressions, whereas the top 10 researched expressions in 2003 and 2005 were more related to informative and entertainment related features.

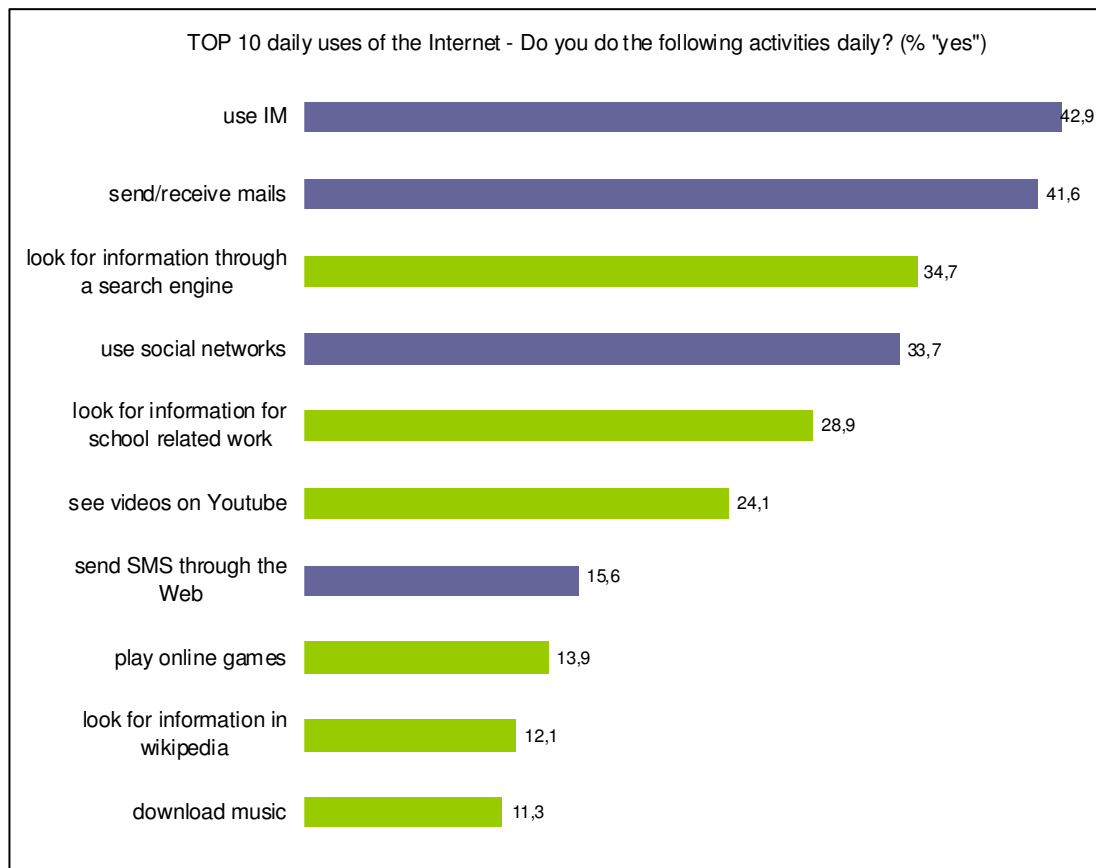
Table 1. Top 10 researched expressions on the Internet

	2003	2005	2007
1	Portugal	Sexo	Youtube
2	Download	Emule	Hi5
3	Lisboa	Google earth	Gmail
4	Free	Sapo	Wikipedia
5	Porto	Benfica	Jogos
6	Natal	Fnac	Sapo
7	2003	Mulheres	Hotmail
8	CD	Nuas	Google
9	Sexo	Google	Vodafone
10	DVD	Gmail	tmn

Source: Markttest, Netpanel



Similar results are observed if we take a look at users' studies. Considering the top 10 daily uses of the Internet, it can be noted that many of those uses are communication related: IM networks, email, sites of social networks such as Hi5 or sending SMS through the web.



Source: OberCom, e-generation 2008 (n=489 – Internet Users)

The previous edition of this project, *e-generation 2006* (Cardoso, Espanha and Lapa, 2006) helped us grasp some emerging trends. In fact, if we compare the 2008 data with the data of 2006, the growing importance of the Internet as a communication mediation technology can also be highlighted.

Table 2. Evolution of Internet Communication Networks users

Communication Tools	Total percentage of users of each tool	
	2008	2006*
e-mail	78,8	58,5
IM networks	70,5	31,5
Social networks sites	63,3	37,0
Send SMS through the Internet	43,1	28,0
Make phone calls through the Internet	12,4	7,7

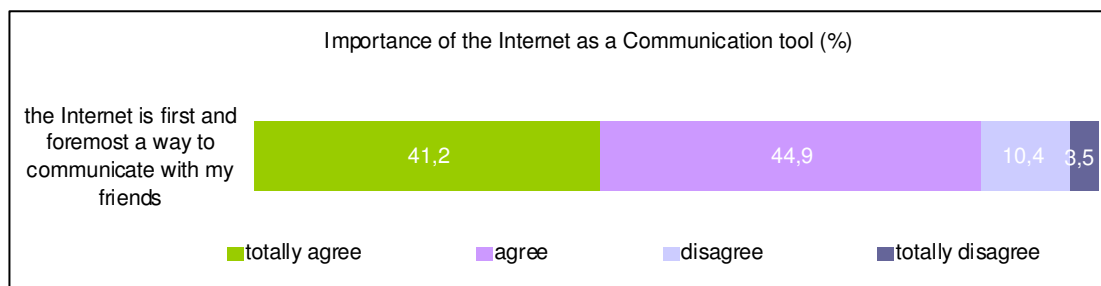
Source: OberCom, e-generation 2008 (n=489 – Internet Users)

*Source: OberCom, e-generation 2006



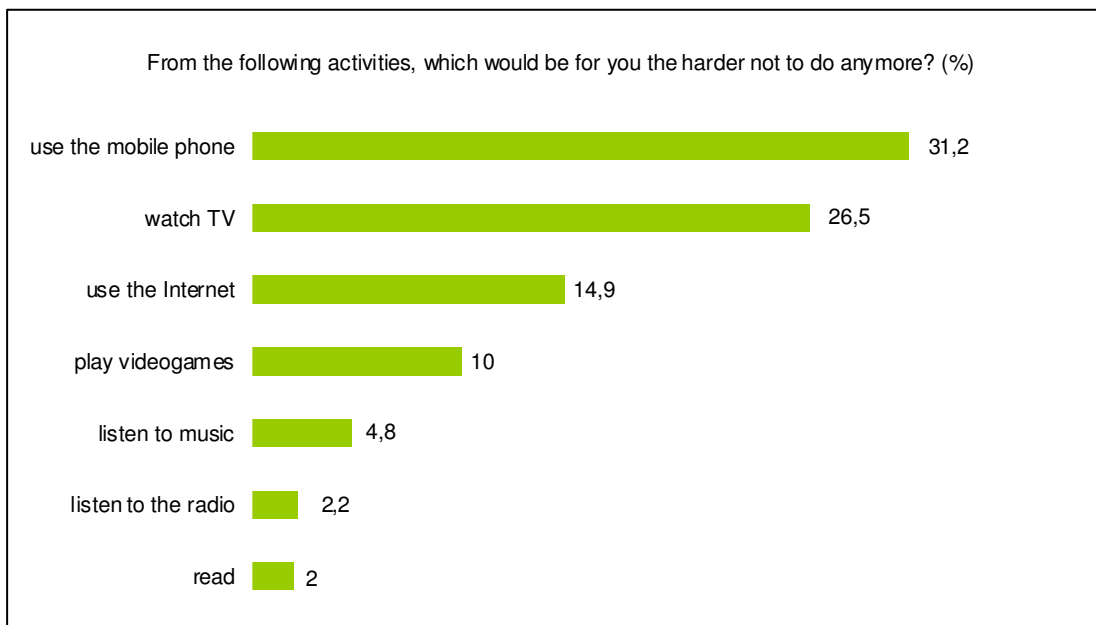
A special attention to the growing importance of IM as a communication tool on the web should be highlighted, as the gap between the total percentage of IM users and email users has been shrinking since 2006, passing from 27 percentual points in 2006 to 8, 3 in 2008.

These results lead us to conclude that the Internet is being more and more used for daily communication-related purposes, becoming one of the central nodes of communication networks. In addition, if we analyse social representations of the Internet, from a more informative-centred image of this technology, we are passing to a more communicative-centred representation. In fact, 41, 2% of Internet users totally agree with the statement “the Internet is first and foremost a way to communicate with my friends”, and 44.9% agree.



Source: OberCom, e-generation 2008 (n=489 – Internet Users)

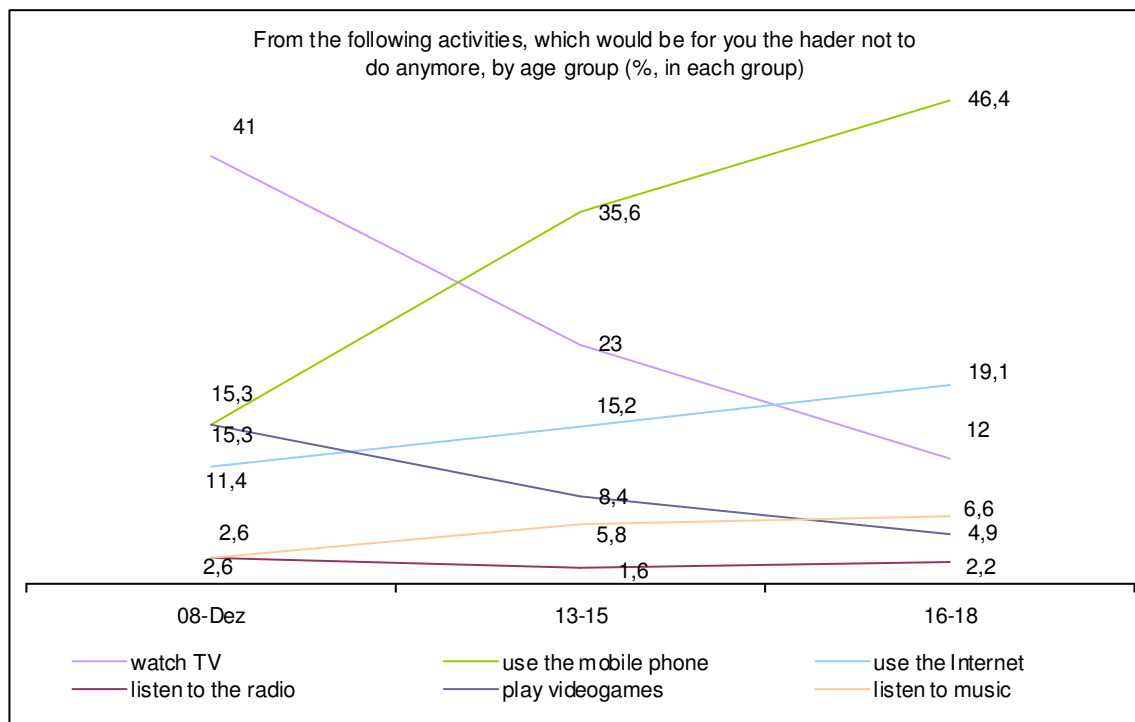
Another important aspect that should be noted is that not only the Internet is more and more used for communicative purposes by young people, as communication tools in general are becoming more and more valued. When asked to choose among several technologies, mobile phone is the most valued equipment, followed by TV, and only then comes the Internet.



Source: OberCom, e-generation 2008 (n=603)



But if we analyse the value of each of these activities by age group, the order of preferences is disturbed. In fact, the youngest (8 to 12 years) tend to value more entertainment-related activities (such as watching television or playing videogames), whereas adolescents give more importance to communication-related activities, such as using the mobile phone or the Internet.



Source: OberCom, e-generation 2008 (n=603)

3. Communication networks: the emergence or the strengthening of social structures?

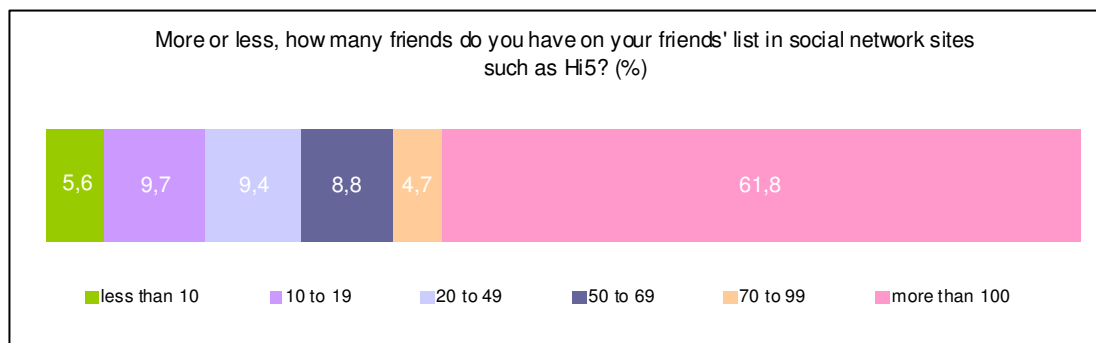
If we think about the Internet a few years ago, in the era of chat rooms such as ICQ, it was common for people to meet new people through the web, and that was a main difference with mobile phones, as these we used to communicate with a close group of known people: “the cell phone helps to stay permanently within the closed social field of familiar others” (Geser, 2004).

But in our days, this difference has been attenuated. The data from the first edition of the *e-generation* project (Cardoso, Espanha and Lapa, 2006) helped us draw some conclusions on the structure of Internet mediated communication networks, highlighting for example that most of the actors are individuals who already know themselves from school or other places, meaning that these applications are now first and foremost a means of social ties strengthening rather than social ties creation, similarly to mobile phones (Cardoso, 2008b).

The 2008 data seem to confirm this trend. When using IM networks, around 95% of respondents claimed they talk mainly to people they already know from the off-line world. Similarly, 86, 5% of social networks sites users said that most of the friends they have on their friends’ lists are people they know from the off-line world. In addition, 71% of Internet users said they had never made any friends on the



Internet, 19% stated they had met people on the Internet, but had never met them personally, and only 10% of respondents said they had met personally with people they met through the web. However, in the case of mobile phone communications and IM contact lists and talks, the number of interlocutors is reduced, whereas in the case of social networks there seems to be a trend to broaden up the scope of contacts. In fact, 61, 8% of social networks sites users said they have more than 100 friends on their “friends” list (even if they do know most of them from the off-line world, as happens for mobiles and IM networks).



Source: OberCom, e-generation 2008 (n=325 – Social Network sites users)

Nevertheless, some differences still remain when comparing communication through mobile phones and Internet communication networks. For voice communications, mobile phones are first and foremost used between family members, whereas IM and social network sites are mainly used to communicate with friends (OfCom, 2008). Nevertheless if we think about SMS, which are mostly sent by young people to communicate with friends, similarities with Internet Communication networks reappear. But other differences are highlighted when analysing the purpose of use of mobile phone communications and Internet Communication networks. For example, in 2006 three main reasons for using IM networks were highlighted:

- talk to friends and school mates (74, 1%)
- arrange meetings with friends and school mates (31, 0%)
- talk about futile things just to pass time (23, 5%)

In the case of mobile phone communications, the most important purpose of using this technology is to organize one’s day, using SMS and phone calls to arrange meetings with friends and also with familiars, and allowing the development of micro-coordination routines of daily life. Curiously, the functions that now IM fulfil where previously some the functions of the fixed phone for young people, especially adolescents: talk to friends, and talk about futile things just to pass time.

Personalization possibilities are also a fundamental characteristic of Internet communication networks. In fact, according to our 2008 e-generation survey, 94,5% of social networks users have their name displayed in their profile, 77,5% the birth date, 77,2% a personal picture, and 60,6% their current location/city. Some people (57, 2%) also include a list of their interests, music preferences (46, 2%) or small personal videos (33, 5%). IM networks are also personalized: data from the 2006 edition indicate

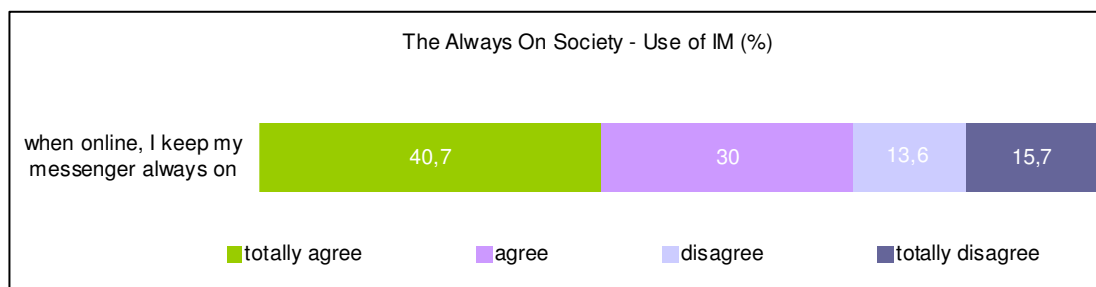


71, 4% of users have a picture or image in their profile, 34, 3% have introduced a personal statement or citation, and 10, 6% share with their contacts the music they are listening to. According to respondents, personalization of IM is mainly useful to transmit one's state of soul (54, 2%), or to defend a cause or idea (32, 1%).

From what has been stated before, we can argue that more than *creating* them (as used to be the case of chat rooms), Internet Communication Networks seem to *strengthen* already existing off-line social ties, similarly to mobile phones (even though, as we saw, these two technologies are being used in different ways). In this ambit, it is possible to argue that a new form of social participation is being developed, a *nomadic social participation*, where social interaction is based in a sort of "nomadic intimacy" (Fortunati 2000). These concepts, initially created for the analysis of mobile communications, can be broadened up to Internet Communication Networks, as these also offer the individual new ways of transiting between social groups and fields of action. And whereas mobile phones are a means of connecting one to its social network, Internet Communication Networks go beyond that stage, offering also a virtual meeting location for groups and social interaction.

4. The always on society and the continuous dialogue

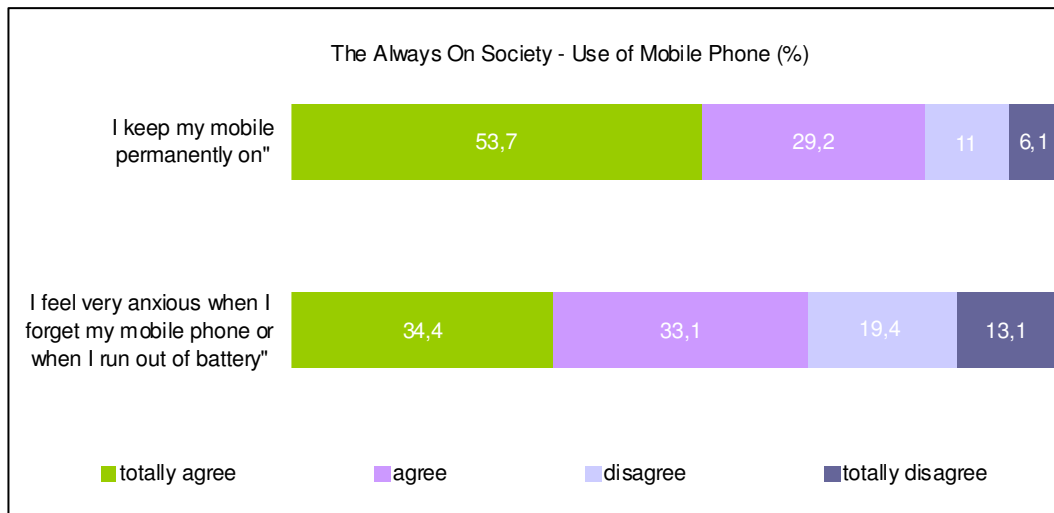
Although some differences were highlighted in the previous section between communication patterns in the Internet and through the mobile phone, both these technologies are contributing in their own ways to the development of an *always on* society, which allows a *continuous dialogue* among individuals. If we consider Internet users, 40, 7% of respondents claimed they totally agree with the statement: "when online, I keep my messenger always on", and 30% said they agree.



Source: OberCom, e-generation 2008 (n=489 – Internet Users)

Similarly, 53, 7% of respondents with a mobile phone totally agree with the statement "I keep my mobile permanently on", and 29, 2% agree with it. In addition, the incapacity of "being on" causes anxiety, as 34, 4% of respondents totally agree with the statement "I feel very anxious when I forget my mobile, or when I run out of battery", and 33, 1% agree.





Source: OberCom, e-generation 2008 (n=508 - Individuals with a mobile phone)

It should also be noted that the borders between Internet and mobile phones usages are blurring. Around 12, 6% of respondents with a mobile phone affirmed they use messenger on their mobiles, and 15, 6% of Internet users said they use the web to send SMS on a daily basis. Therefore, applications, more than devices seem to be the shaping communication patterns, creating a network of interaction between devices and uses rather than a convergence of technologies (Cardoso 2008a).

To sum up, Communication Networks are giving raise to network sociabilities, articulating Internet Communication Networks and Mobile Communication Networks. In order to integrate the remarks of this and the previous section, a multiple correspondence analysis has been achieved, considering the following variables: gender, age, degree of IM and social network sites usage (heavy users/regular users), intensity of SMS sending (heavy SMS sender/regular SMS sender), degree of involvement in the *always on* society (IM or mobile always on/ no IM or mobile always on). Other dimensions such as social representations of the Internet (means of communication versus means of entertainment) or most valued media were also taken into account when framing the analysis of results (see annex 1).

Three groups were identified. The first is the core of the *always on* society, mostly composed by adolescents (16-18 years old) and includes a series of young people who permanently keep their mobiles and their messenger always on. This group of people is also the most active SMS sender and is composed of heavy IM and social network users. For these people, the Internet is first and foremost a means of communicating with friends, and even entertainment features such as You Tube videos or music file sharing are looked at from a communicative point of view, in terms of their interactive features and their ability to be shared and commented.

The second group identified, the early-adolescents (13-15 years), includes regular IM and social network sites users. These are "on and off" persons, that is to say, individuals who already have a digital presence but are still not *always on*. This group gathers people who are starting to develop the



adolescence typical need of belonging to social groups, and therefore are maximizing their social contacts by transferring and expanding them into a virtual context.

The third group, the pre-adolescents (8-12 years) includes individuals who haven't developed a consolidated digital presence yet. Although they are Internet users, they are not *always on*, and are not heavy SMS senders. For the people in this group, the Internet is first and foremost a means of entertainment, rather than a way of communication, and the individuals in this category tend to value more passive features such as watching television rather than using interactive communicative tools such as the Internet or mobile phones.

5. Conclusion - Thoughts on the Networked Communication Society

In this exploratory analysis, we tried to frame communication patterns in the Era of Networked Communication by expanding the scope of some concept initially developed in the ambit of analysis of the mobile phone's social effects, to the case of Internet Communication Networks. Although this task had already been accomplished by other researchers (Myiata, 2005; Goad, 2007) it is an innovative approach when analysing Portuguese youth. We were able to highlight some apparent trends:

- If in its beginnings the Internet was mainly associated to the scope of Information, its communicative features are being more and more highlighted, and communication in general is now a consolidated central node of the networked society;
- Two main networked technologies are in the basis of this centrality of communication: mobile phones and Internet Communication networks. The use of these two technologies is interconnected and it fulfils the current and growing will of perpetual contact felt by individuals;
- The social interactions mediated by communication networks acts as a reinforcement of previously off-line existing ties, rather than creating new social acquaintances, as initially used to happen with chat rooms;
- When focusing our analysis on young people, a group stands out as an *always-on* group. It includes mostly adolescents, and a link between the desire of being always on in an integrated way through mobile and Internet communication networks was identified, leading us to the hypothesis that more important than devices are applications.

Nevertheless, the present paper is only a simplified exploratory analysis of the data. Further research is needed, namely the establishment of other fruitful comparisons with the 2006 data, international comparisons, and more qualitative data that could allow us to better frame our conclusions.



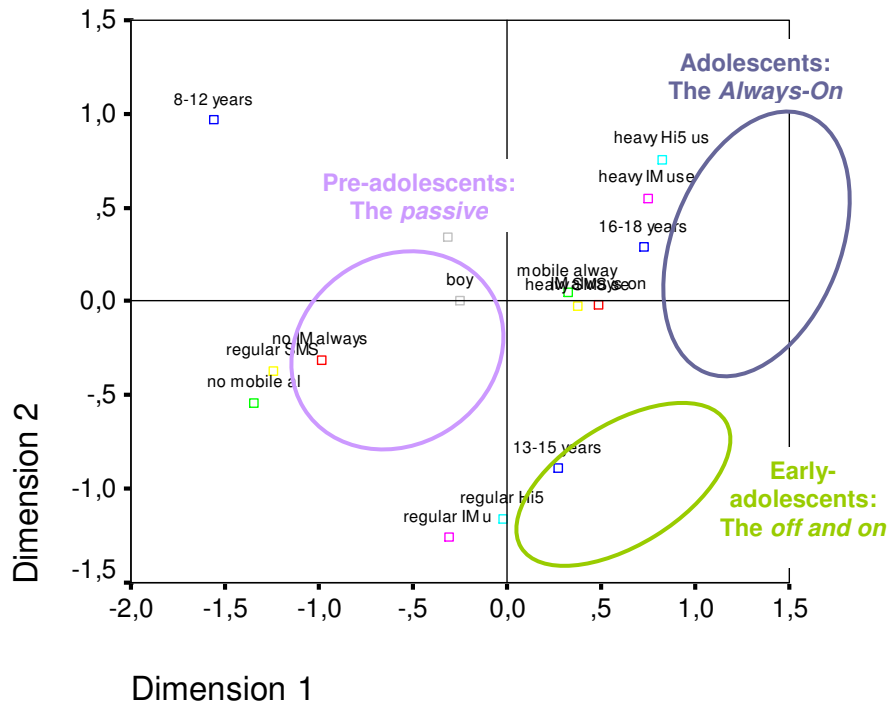
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ANNEX 1

Multiple Correspondence Analysis – Youth and Communication Networks



About the Authors

Vera Araújo is graduated in Media Studies and holds a post degree in International Cultural Management. She cooperates with OberCom since 2004, and has conducted media research in Angola in 2006/2007. Currently, she develops research related to the Network Society, with a special focus on the adoption of mobile phones and the implementation of the Digital Terrestrial Television in Portugal. She is a member of the WIP (World Internet Project), COST 298 and of the IAMCR (International Association of Media and Communication Research).

Gustavo Cardoso is Professor in the Department of Information Sciences and Technologies ISCTE University in Lisbon, Portugal. He graduated from ISCTE in Management, where he also obtained his masters in sociology of communication and his doctorate. Currently he is the Director of LINI-Research, OberCom (a communications watch not-for-profit institution based in Lisbon) and editor of the Observatorio (OBS*) international open access Journal.

Rita Espanha is a researcher at CIES/ISCTE developing research in areas as Young People and ICT, e-health and e-democracy. She is a lecturer at the Master on Communication, Culture and Information Technologies at ISCTE and also lectures Communication Theory at ISLA. She is member of the Executive Commission of OberCom - Media Observatory and participates in international research networks (WIP - World Internet Project at USC Annenberg, COST A20 - The Impact of the Internet in Mass Media and COST 298 - Broadband Society). Her main areas of research focus on developing knowledge in the ICT use and social appropriation in the fields of Health and Media (area where she is developing her PhD). She is Editor of the international peer-review journal Observatorio (OBS*).

