Affective technologies – emotions and mobile phones
Amparo Lasen

Amparo Lasen is the late Vodafone Surrey Scholar at the digital world research centre, University of Surrey. During her three project years she investigated the social factors affecting the current and future shape of mobile devices, services and networks. Lasen holds degrees in Sociology from La Sorbonne, was a lecturer at the University Carlos III de Madrid and an Academic Visitor at the Department of Sociology of the London School of Economics. Together with Lynne Hamill, Amparo Lasen edited "Wireless World: Mobiles - Past, Present and Future" that will be published by Springer-Verlag in Spring 2005. In her *receiver* contribution, Lasen demonstrates how mobile phones are affective technologies - that is, objects which mediate the expression and exchange of feelings and emotions.

The Digital World Research Centre
http://www.surrey.ac.uk/dwrc

Mobility is part of the original sense of the notion of emotion as it refers to agitated motion, mental agitation or feelings of mental agitation. Emotions are those mental states called "passions" in the past. An important feature of the affects depicted by the category of passions is the idea that they entail ways of being acted upon, of being moved by other beings, objects, events, and situations. Nowadays people are moved and acted upon by their mobile phones. Mobile phone uses are the result of a shared agency. Competences and performances are distributed between people and devices. People and their mobile phones constitute a particular example of the assemblies between the human and non-human, as described by Bruno Latour. The assembly 'me and my mobile phone' is constituted in situated practices where other actants -groups, individuals, objects and spaces- are involved.

Bruno Latour
http://www.ensmp.fr/~latour/

Mobile phones have become affective technologies. That is, objects which mediate the expression, display, experience and communication of feelings and emotions. Users enjoy an affective relationship with their phones and feel attached to them. This is partly due to the intrinsic affective character of human communication, and also because mobile phones are close to the body. They are an extension of the human body at the same time that they extend and augment its abilities. Emotional attachment is enacted in the personalisation of handheld devices and services. Mobile phones are not only an extension of the owner's presence, but they also allow the virtual presence of those linked to us by phone communication. Thus, they become an important element in the building and maintaining of groups and communities.

Research carried out at the Digital World Research Centre by Jane Vincent shows that people have a more emotional relationship with their mobile phone than they do with other forms of computational devices. Mobile usage is explained using emotional language categories including panic, need, desire and anxiety. French sociologist Francis Jauréguiberry (2003 *Les branchés du portable*, Paris: PUF) has also highlighted the complex relationship between mobile phones and anxiety. Mobile phones reduce the stress of a tight timing by allowing more flexibility, but at the same time induce a new kind of anxiety when users are not connected: "Have they missed something important?" "Has someone tried to contact them?"

Mobile phones receive the affective meanings of the communications and exchanges that they mediate and they also contribute to modifying the ways of expressing emotions. Mobile phone uses also create opportunities for emotions to arise, for example when reading or writing an SMS. New devices facilitate new emotional experiences, such as the playful way of taking pictures with a camera phone which can add a thrill, an emotional intensity, to the boring routines of daily commuting, like taking snapshots without seeing what is being taken, taking the phone out of the car window and shooting, or taking pictures of strangers in the bus or in the street while trying to be unnoticed.

Mobile phones' presence and expression in everyday life contribute to the personal development of the users' social skills, emotional behaviour and emotions management. Their use entails the renegotiation of social norms about the public display of emotions or the management of potentially embarrassing situations. Through our upbringing, we learn how to express, but also to control and hide, negative, embarrassing or unsuitable feelings. Mobiles help express emotions but also control them. Mobile phones facilitate the possibility of choosing whether to display or not the emotions experienced, for instance by using "cooler" channels of communication like text, where senders avoid the possibility of being betrayed by their voices and can think twice about what they are going to say and answer. They allow people to do things that are difficult to do when face-to-face, such as emotionally charged situations like 'breaking up' a relationship.

Sharing emotions is crucial for the creation and maintaining of social bonds. Zygmunt Bauman's description of the situation of unbound contemporary individuals, forced to tie together whatever bonds they want to use as a link to engage with the rest of the world by their own efforts, gives a strong insight into the role of mobile phones in our societies as a help to accomplish this task of providing connections. Mobile phones also respond to the other human need outlined by Bauman, namely that these bonds should be loosely tied, so that they can be untied again as settings change. Mobile phones and their promise of perpetual contact and permanent accessibility provide the assurance of connections that needs to be ceaselessly renewed. But they

also witness and account for this anguishing situation where contacts and relations cannot be taken for granted: "Why didn't I get any message today? Why didn't she call me back?"

Connectivity

My research about mobile phone uses in London, Madrid and Paris, a longitudinal study, carried out in 2002 and 2004, based on observation of mobile phone uses in public places and in-depth interviews, reveals the importance of social connectivity. The main reason to have a mobile phone is to be in contact with friends and family and the most important aspects of mobile phones are to be always reachable and to contain all the contact numbers of those we know. Features of new mobile phones are used to develop and maintain relationships, such as using the reminder function to register friends' and relatives' birthdays. Many phone pictures are portraits of friends and family, for their owners' use or to show them to other people, like pictures kept in a wallet. MMS add to the use of SMS in gift giving, a practice described and analysed by Alex Taylor. Pictures are also taken to keep a record and share a moment of common celebration, such as parties, nights out, and birthdays. Other example of images taken with camera phones that contribute to sustain relationships are pictures of places and objects with a particular interest for the users or for someone they know, such as a nice Italian restaurant on the way to work to show to the husband; or a pair of shoes in a shop window to show to a friend.

Alex Taylor's publications
http://www.surrey.ac.uk/~hus1at/publications.html

Place mood

The containment of emotions in the spaces of privacy and intimacy is a characteristic of modern western societies, which is the result of what Norbert Elias called the civilising process. What is considered suitable, polite, rude or disgusting public behaviours and practices change over time, and these changes keep showing different trends in our way of dealing with emotions in public. Mobile phone use also facilitates the redefinition of codes of human interaction. One of the differences in the research findings between 2002 and 2004 is that interviewees now appear less shocked and bothered by private conversations and personal feelings associated to mobile phone exchanges displayed in public areas.

The Norbert Elias Foundation
http://www.norberteliasfoundation.nl

These changes in social etiquette are sometimes interpreted as bad manners. This critique fails to account for rules and etiquette that characterise mobile phone communication both between caller and receiver, and between the phone user and those in the surroundings. The belief that

the adoption of a new device would entail the abandonment of good manners and politeness was already present in the early days of the landline telephone. Observation of mobile phone exchanges and uses reveals unwritten rules of mobile phone etiquette, such as the opening question of the caller 'can you talk now?' or the Spanish '*te pillo en buen momento*?' (Is it a right moment?), the use of SMS when one does not want to be disruptive, or the use of the silent mode.

The emotions displayed in public by users of mobile phones are more often positive, such as laughs and smiling faces, affective conversations between lovers, mothers and children; rather than negative, such as anger, despair, sadness or embarrassment. Nevertheless, observation found people having phone rows and women in tears during or after a phone conversation, and even on one occasion in Paris, a woman crying and insulting the receiver.

Emotional displays last longer than the phone conversation, as in the example of the mother looking through the train window with a smile upon her face and sparkling eyes after having spoken to her children, or the young woman in London trying to hold back her tears after a row with her boyfriend. This is another aspect of how mobile phone users influence the mood of the place where they are, adding mystery and diversion to normal patterns of perceiving and behaving. This aspect could be improved. For instance, users could send non-intrusive signals to nearby phones, such as vibrations, discreet sounds, or colours. Mobile phones could be a kind of peripheral awareness device that creates opportunities for serendipitous communication. Mobile phone users are already using their phones to communicate the mood of a place by talk and also by sending pictures and texts from football stadiums, concert venues, clubs, holiday resorts, classrooms and offices, or public demonstrations. New applications such as 'Bluetooth' could improve this kind of communication and open it to those whose phone numbers are not in our phone book.

Always in touch

The way mobile phones are held and touched is one of the aspects that make this relationship different to other ICT devices. The attachment to mobile phones is revealed by the transformation from being an object always at hand to being almost always in the hand and close to the body. Observation found many people in London, Madrid and Paris, women and men of all ages, having the phones in their hands even when they were not using them. They hold it in one hand when walking or even when jogging in a park. They fiddle with them, sometimes whilst they are having a face to face conversation. People also press it nonchalantly against a cheek or an ear while sitting on a train or waiting at a café table, or touch it with the thumb, as if ears and thumbs could not bear the separation from the device. In some instances observed, people kept the phone in their hands even when holding other objects, as two young women sitting at different tables in the same café in Paris who were writing, smoking, drinking a cup of coffee

and holding the phone, all at the same time. As people use the silent mode to avoid annoying others, phones are carried in the hand or close to the body in order to notice when they go off. Motorcyclists in Paris carry the phone stuck between the ear and the helmet. A growing number of people also wear their phones as necklaces, hanging from a chain or a band, bouncing against their chest when they walk.

Emotions are displayed and expressed through verbal and non-verbal behaviour. The aesthetics of the mobile phone experience could be improved by extending the range of non-verbal and tactile communication, allowing mobile phones to be not only multimedia but also multi-sensuous devices, including not only hearing and sight of course, but also touch, as according to observation the physical contact with the device goes beyond the moments when people are using it. Touch could be a way of transferring and receiving emotional messages through the device. For instance, by pressing certain parts of the device we could send non-verbal messages, like vibrations, or a sudden rise of temperature, to the receiver's handset. This multi-sensuality would not only make the phone more appealing, and uses and interactions richer, but it would also help those with impaired speech, sight and hearing.

Closeness to the body and their role in communication with loved ones make mobile phones a technology of intimacy. Intimacy is linked to touching and to the pleasures of the body, affections and sexuality. Mobile phones afford communication of feelings and thoughts at the time when they arise. This generates emotion and is one of the reasons for the attachment to the device. Such situations have often been observed, like a young woman on a Parisian bus who suddenly stopped reading her book, took her phone from her pocket, sent an SMS, raised her eyes, smiled, put the phone back in her pocket and resumed reading. SMS have an important role in romantic communication, not only for teenagers. Adults interviewed revealed that they store in their phones the affectionate or poetic texts sent by lovers and partners. Daily texts or calls to say 'good night', 'how was your day', or 'I miss you', are in many cases part of the expected exchanges when being in couple.

Attachment to the content stored

People are attached to the content stored in the phone, such as phone numbers, SMS, pictures, videos. The value of the device is increased by the emotional attachment to the object and to the information it contains. The feelings and reactions of people when phones are lost or stolen reveal the importance of the object. The anger, distress, sadness and frustration experienced after the loss go beyond the cost of the device and the mere inconvenience of lacking a mobile. Not being able to make a phone call when one wishes to has become unbearable. It makes people feel miserable and

miss their mobile even more. The possibility of being in contact is so important that the loss of this capability produces strong feelings, such as panic when users lose or forget their phone, or anger against the operator when the network fails. This aspect outlines the importance of the resilience of networks for mobile phone users.

Every mobile is a repository of a large number of other people's names and numbers. Teenagers have been observed competing on the basis of the number of names they have on their mobile. Without establishing a competition, adults also have large mobile phone books. Most of the participants in the research tend to note in the phone book every number they are given, and in many cases this is the only place where they keep the phone numbers. The majority of the participants in the research in the three cities seldom delete any number from the phone book. Moreover, deleting a number from the phone book has the signification of banning someone from one's life, a physical act meaning oblivion. This was explicitly acknowledged by several women about deleting numbers of former boyfriends, as this seems to be the only case when they have deleted a number. Mobile phones have the effect of making the owners think that there are third parties present even when they are not using it. The possibility of being in contact at any time with others makes them virtually present. Therefore deleting someone's number suppresses his or her virtual presence in our life.

Non mundane uses

Most of the mobile phones exchanges are mundane: meeting arrangements, information requests, small talk. They are part of the 'wallpaper' of everyday life. But as everyday life is punctuated by unexpected events, mobile phones also mediate modes of human communication that is emotionally charged in extraordinary situations.

Terrorist attacks, accidents and catastrophes when victims phone their loved ones to say farewell give a tragic transcendence to mobile phones. Afterwards, the sound of mobile phones ringing heard by the rescue workers, becomes the symbol and in many cases the only physical remains of the lost lives. In the words of the Spanish writer Manuel Vázquez Montalbán in "Móviles" (*El Pais*, 17th November 2001), in an article about the attack on Manhattan, mobile phones become part of the fragile barrier against death, together with love and art. The farewell call becomes "the only possibility of prevailing over the premonition of the inevitable death".

Article of Vázquez Montalbán
http://www.manueltalens.com/lecturas_ ajenas/lecturas/moviles.htm

The fieldwork carried out in Madrid in 2004 took place the week after the attack on three commuter trains. Mobile phones were a news topic during those days for different non-mundane uses. First, there were those injured in the train attacks, calling and texting their relatives, and the phones

ringing which became a symbol of the missing. Voice messages left by the victims, with the noise of the blast and the screams as background, were broadcast on radio and television. Then came the discovery that mobile phones were used as detonators and, as a consequence, the perception of the device as a potential danger. Since then, passengers at the check-in at Madrid airport are asked whether they carry mobile phones in their luggage.

Just two days after the attack, and the day before the general elections, protesters rallied to complain about the way the government was dealing with the information on the attacks. They were organised, first in Madrid, and then in other cities such as Barcelona, Bilbao or Seville, through massive use of SMS. It was the first time that such 'smart mobs' happened in Spain. As Howard Rheingold describes it, mobile phones have been used to organise political actions in different parts of the world in the last decade.

Emotions are not only private feelings, they are also an important part of public life and collective action. A high level of affectivity also characterises political actions organised with the help of mobile phones, by extending the feelings and affections experienced when taking part in a crowd action, in protests, demonstrations, riots or sittings, to the collective communication with mobile phones. The statements of the participants in the demonstrations in Madrid illustrate these feelings: "No flags, no political parties, no organisers, no orders", "People lift up their phones so those in the other side can perceive the mood in Madrid", "… a feeling of euphoria when we see that we are so many, that we are countless", "we don't need political parties to organise demonstrations. We know that internet and mobile phones tell us what official media do not say and we already know that we have got a communication tool, from mouth to mouth to express ourselves". In this case the others virtually present, thanks to the mobiles, are not only friends and acquaintances but also all those who share similar ideas, views and angers, and are ready to be mobilised in collective actions.

http://www.smartmobs.com

Smartmobs
The emotional attachment to mobile phones, their growing importance in the affective relationships of their owners, and the affective experiences facilitated by mobile phone use, reveal the involvement of the device in the formation of people's subjectivity: which role the mobile phone plays in the perception and building of the self and how the entity 'me and my mobile' relates to other people are issues deserving further research, keeping in mind that these questions will find a plurality of answers according to different users, and to different situations in which 'me and my mobile' are involved. Designing mobile devices and services not only needs to take into account the different functions (voice, text, images, ring tones, etc.) and expressions (flirting, checking that nothing has happened, waiting, being open to connection, etc.) of the phone, but also the different kind of

participants in the phone experience. Mobile phones mediate exchanges between different instances: one-to-one communication, one-to-many, access to data, collaborative use of the phone, or face-to-face interaction with those locally present. Therefore affective communication through mobile phones has different kinds of recipients: people we know, as friends, family, colleagues and acquaintances; strangers in anonymous communication with those in our surroundings or on the Internet; and also a third category of familiar strangers: from the participants in a chat room to clubbers sharing the same place and music, exchanging words and glances. The possibilities of communicating with strangers and familiar strangers through mobile devices are being explored by prototypes like *"LoveBomb"* and Intel's "Jabberwocky".

Jabberwocky
http://www.urban-atmospheres.net/Jabberwocky/

Love Bomb
http://www.playresearch.com/

Emotions influence memory, attention and perception, the way we learn, prioritise, and make choices and plans. Mobile phone use plays a role in all these activities and this will probably grow in importance as data access applications become more widespread. If the design of mobile phone handsets and services were to take this mediation of emotions into account, by facilitating an affectively richer mobile phone experience, it would not only improve mobile phone communication but would also help to improve the performance of tasks in both work and home environments, as positive affects are like a springboard allowing us to overcome difficulties and to think more clearly, which could reduce the frustrations of communication. However, it would not eliminate the frustration and paradoxes of social bonds and human communication. These belong to the nature of human exchanges and to the kind of social relationships involved in present day societies, and they cannot be solved only by new and more sophisticated digital devices.

This article was written exclusively for *receiver*
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