The Affective Turn of Mobile Phones

A study of affect in mobile-mediated communication

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Abstract

The line between man and computer is no longer drawn at the ability to think but the capacity to feel. With the focus on emotion in human-computer interaction, research has extended past the cognitive to understand new aspects of human experience. This thesis studies the affective turn of mobile phones using interviews with couples and an online survey. The focus is not limited to the mobile's role in mediating emotion or as an object of affection due to its contents, but points to it as a stand-alone affective actor. This thesis argues that mobiles are not simply inert objects that only respond to our whims and wants – they too have a presence. They move us in the same way that people can "move" each other – they are energetic participants in our assembly of human and non humans. As a result, users rarely view mobiles as mere technological devices but rather as natural beings, ones that have expressions – derived from the presence they create. This thesis argues that mobiles transfer affect, emit or radiate an aura that generates anxiety, pleasure or calm in people or places. Our relationships with them, often characterised by paradoxes and ambivalence, is shifting away from the realm of mobile culture to become part of human nature.

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Chapter 1: Introduction

A rare few are unmoved by the charms of mobile phones. At the very least they are lauded for their abundant technical affordances[1]. At the very worst they are seen as facilitators for the darkest parts of our social behaviour. This thesis navigates the creases of mobile communication. It wiggles in between the incremental exchanges of couples living in the Netherlands and England, examining the conversations that make up the "wallpaper"[2] of their everyday experiences and their deeper, more intimate expressions of love and affection. These interviews aim to test the label of mobile phones as affective technologies and to better understand the depth of our affective relationships with them. This approach of qualitative research was chosen to provide a thorough, thoughtful account of the lived and personal mobile experiences of couples – in their own words. The results were compared and contrasted with an online questionnaire of 118 respondents.

The human behaviour that mobiles inspire is nothing short of fascinating. It has led me directly to this examination of the affective turn of mobile technology[3]. My everyday observations, general and formal inquiry revealed that mobile phones are perceived and treated less as technological tools but more as natural beings, even friends or colleagues. Simply the way people clutch phones, especially in foreign places, reveals at least anecdotally, how we[4] have come to feel connected to others through these devices, showing the emotional significance we attach to them. Mobiles have

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[1] In 1988, Donald Norman appropriated the term "affordances" in the context of human–machine interaction to refer to just those action possibilities that are readily perceivable by an actor. (Donald A. Norman, *The Design of Everyday Things* (New York: Basic Book, 1988) Preface xii.)

[2] "Wallpaper" is a term used by Amparo Lasén to describe the more mundane types of mobile communication between people like meetings arrangements and information requests and small talk (Amparo Lasén "Affective Technologies – Emotions and Mobile Phones" *Vodafone Receiver* (Newbury: Vodafone, 2004) 5.)

[3] "Mobile technology" refers to the device, its operating system, the software users download onto the device (including applications) and the services provided by the network provider. This term is used interchangeably with "wireless technology" in this thesis.

[4] Mobile phones enjoy massive global ubiquity. Nearly 80% of the world's population are mobile subscribers, 97 economies have over 100% mobile penetration. Arguably, only the infirm, poor, aged and infants do not have access to one. This is emphasised throughout this thesis by the purposeful, inclusive use of "we" and "our" when referring to mobile phones. (International Telecommunications Union, 'Statshot' Aug 2011, 11 Aug 2011 <http://www.itu.int/net/pressoffice/stats/2011/03/index.aspx>.)

become witnesses to our emotional lives – as the primary communication channel for mediating emotion.[5] They are the accountants of our emotional transactions – storing our precious contacts, picture memories and ephemeral love letters.[6] [7] They also aid and abet our emotional processing, ultimately becoming the "architects of our intimacy."[8] Their capacity to affect and be affected remains a nascent field deserving further research.

This study is informed by the small and select group of mobile researchers working in the field. Predominantly it relies on the inspiring research work of mobile scholars Amparo Lasén, Leopoldina Fortunati and Jane Vincent. Their work acknowledges mobiles as players generating and mediating emotion, as agents in and of subjectification and as a body object and force in our human relations.[9]

Focusing on the technological affordances of mobile phones would offer little room for debate – partly because of the pace at which this agile technology develops and its technological prowess forms the least insightful dimension of the mobile landscape. The most challenging and provoking aspect of mobile technology is the many ways it has transformed (and is still transforming) our social structure and practices. There are divergent views on the role of mobile phones in creating social cohesion and power relations and this is explored against the backdrop of the major themes of mobile-mediated communication[10] in Chapter 2. The question in this chapter is not so much 'what do these machines[11] do *for* us' but also 'what they do *to* us?'[12] The work of

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[5] Feelings, emotion and affect are defined differently even though the terms in this thesis are used interchangeably. Feelings are sensations checked against previous experience and "labelled". Emotions are personal displays of feelings shown through things like facial expression and can be genuine or fake. Affect is entirely innate (and can't be faked) and is bodily and autonomic in nature. Affect is transmitted between bodies and, is unformed and unstructured and aroused by factors the individual has little control over. (Eric Shouse, "Feeling, Emotion, Affect." M/C Journal 8.6 (2005). 14 Aug. 2011 <http://journal.media-culture.org.au/0512/03-shouse.php>.)

[6] Amparo Lasén, "Mobile Media and Affectivity: Some Thoughts About the Notion of Affective Bandwidth." *Mobile Media and the Change of Everyday Life* (Frankfurt am Main: Peter Lang, 2010) 1-6; Lasén "Affective Technologies" 1.

[7] Amparo Lasén, "Understanding Mobile Phone Users and Usage" (Newbury: Vodafone Group, 2005) 130.

[8] Sherry Turkle, *Alone Together: Why We Expect More from Technology and Less from Each Other* (New York: Basic Books, 2011) 256.

[9] Amparo Lasén, "Mobile Culture and Subjectivities: An Example of The Shared Agency Between People and Technology." *Interacting with Broadband Society* (Frankfurt am Main: Peter Lang, 2010) 2.

[10] Mobile-mediated communication refers to communication between people made possible by using mobile phones (text, voice and data).

[11] Turkle was referring to a number of different technologies, including mobile phones, under the umbrella term "machines." (Sherry Turkle, "Alone Together Why We Expect More from Technology and Less from Each Other" 2 June 2011, 3 June 2011<http://www2.lse.ac.uk/newsAndMedia/videoAndAudio/channels/publicLecturesAndEvents/player.aspx?id=1027>.)

sociologists Erving Goffman, Sherry Turkle and Rich Ling predominantly informs this line of thinking alongside the work of philosopher Michel Foucault.

"Emotion pulls the levers of our lives, whether it be by the song in our heart, or the curiosity that drives our scientific inquiry."[13] The inquiry of this thesis pertains directly to emotion – couples were chosen for their high propensity for emotional exchange. The affective nature of mobiles phones is unpacked into its various layers in Chapter 3 – referencing the importance of emotion in influencing our behaviour, perception and reasoning underpinned by the work of prominent neuroscientist Antonio Damasio. As mobiles are wearable computers the label of affective technologies is contextualized by the work of M.I.T computer scientist and godmother of affective computing, Rosalind Picard.

Technology is an extension of our lives and an indispensable part of our existence and there are none more intimate than mobile phones.[14] This thesis argues that mobiles exude a presence that is nourished by the bonds it helps form or break infusing it along the way with its own technological idiosyncrasies.[15] This impacts the dynamics in our relationships and the spaces they occupy. Our affective relationships with mobiles are not ones we often reflect upon, they simply exist alongside all others. Albeit currently located in the landscape of mobile culture, these relationships have become second nature to us.

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[12] Turkle "Alone Together."

[13] Rosalind W. Picard, "Affective Computing" *M.I.T Media Laboratory Perceptual Computing Section Technical Report 321* (Cambridge: M.I.T Media Laboratory, 1995) 1.

[14] Kevin Kelly, "How Technology Evolves" *TED* Nov 2006, Jul 29 2011 <http://www.ted.com/talks/kevin_kelly_on_how_technology_evolves.html>.

[15] Lasén "Understanding Mobile Phone Users and Usage" 132.

Chapter 2: Literature review

It was only 38 years ago, at the hands of an engineer inspired by Captain Kirk's communicator, that the mobile phone was born. In a brazen show, in front of onlookers and journalists, Marty Cooper called a rival engineer at AT&T's Bell Laboratories from a Manhattan sidewalk using his one-kilogram, 20-minute battery Motorola DynaTAC. In the (almost) four decades since then, it has evolved into one of the most widely used, defining communication technologies ever invented.[16] It is no longer a mobile phone but rather a "versatile computational mobile device."[17] Mobiles are powerful competitors to the desktop computer; able to perform nearly all the same functions, inspiring technologists to call the future "post-PC."[18] The very least of their efforts produce a phone call. They predict weather conditions; tell friends our location; measure sleep patterns; make restaurant recommendations and (for now) stop short of giving us a back rub. Representing an evolutionary milestone for communication technology, mobile phones have extended the technological platform of our network society[19]. [20]

Early literature in the field focussed on similar themes of relentless connectivity[21], permanent availability, control and surveillance. Sociologist Richard Ling honed in on the behaviour and rituals that the technology inspires, coining phrases like "bounded solidarity" to describe our "cocooning" and isolation with the device.[22] Linguistics researcher Naomi Baron has covered many aspects of the new language terrain that has risen up with the technology, smashing the idea of mobile

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[16] Gerard Goggin, *Cellphone Culture* (New York: Routledge, 2006) 29. "Father of the Cellphone,"*The Economist* June 2009, 18 May 2011<http://www.economist.com/node/13725793?story_id=13725793>; Richard Ling, *New Tech, New Ties* (Cambridge, Massachusetts: The MIT Press, 2008) 13.

[17] Jane Vincent et al., *Electronic Emotion* (Bern: Peter Lang, 2009) 187.

[18] Steve Jobs, "Apple iPad 2 Keynote" 7 Mar 2011, 29 Jul 2011 <http://www.youtube.com/watch?v=XdSQbVFobu4 >.

[19] Network society refers to a term used by author Manuel Castells to describe a society "where the key social structures and activities are organized around electronically processed information networks". (Harry Kreisler, "The Network Society and Organizational Change" 9 May 2001, 22 May 2011 <http://globetrotter.berkeley.edu/people/Castells/castells-con0.html>.

[20] Manuel Castells et al., *Mobile Communication and Society A Global Perspective* (Cambridge, Massachusetts: The MIT Press, 2007) 258.

[21] Relentless connectivity refers to a term introduced by Manuel Castells (Castells 248).

[22] Richard Ling, "What would Durkheim Have Thought? Living in (and with) the Information Society" Keynote address presented at "Living the Information Society: The Impact of Information and Communication Technologies on People, Work and Communities in Asia", 23 – 24 April 2007.

communication as an "impoverished signal" and highlighting the emboldening effects it has on users' behaviour.[23] Telecommunications researcher Scott Campbell and Ling's research into the new sources of information that are being used to navigate mobile communication – time and place – lend insight into the redefined interaction codes we have at our disposal through mobile media.[24]

But, it's Sherry Turkle who asks the most poignant and pressing questions about the technology. Early on, she introduced the notion of how we've become "tethered" to our phones. She challenges our dependence on the technology and the implications of this for our relations: "Why do we expect more from technology and less from each other?"[25] This goes to the heart of the recent literature focus – away from a human-computer interaction towards how the technology has changed our emotional experiences and affected our relationships with ourselves, with lovers, parents, peers and our physical environment, as this chapter explores.

2.1 Tethering and Relentless Connectivity

"I'm still clinging to my BlackBerry. They're going to pry it out of my hands." - President Barack Obama

Mobile technology has incredible affordances. It helps us maintain and renew social bonds; makes sharing experiences much simpler; creates opportunities for us to work from home; creates more autonomy for children; gives us the freedom to change plans at the last minute; it emboldens communicators (especially shy ones) and becomes a player in creating intimacy between people.[26]

Despite the proven benefits of mobiles, this technology is also capable of restricting personal freedoms through increased surveillance, decreased privacy, and dependency on the phone for social interactions. Even when we are separated from our phones we feel phantom vibrations in our pockets or hear phantom rings in the air.[27] Our perpetual availability has further amplified issues of control implicit in the

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[23] Naomi Baron, *Always On* (Oxford: Oxford University Press, 2008) 29.

[24] Richard Ling, *The Reconstruction of Space and Time* (New Brunswick: Transaction Publishers, 2010) 130.

[25] Turkle *Alone Together* cover.

[26] Amparo Lasén, "Mobile Media and Affectivity: Some Thoughts About the Notion of Affective Bandwidth." *Mobile Media and the Change of Everyday Life* (Frankfurt am Main: Peter Lang, 2010) 1-6; Vincent 188.

[27] Ling *New Tech* 3; Turkle *Alone Together* 562.

employer-employee relationship; eroded concepts of public and private space as well as "dialling down human contact", alongside a myriad of other practices.[28]

Mobile communication is defined by making people permanently connected.[29] But, ironically many people are not liberated by this thought but feel imprisoned by their phones or "subjected" by them.[30] American university students claimed the thing they most liked about their phones was the ability to reach people. Simultaneously they complained that people could always reach them.[31] Mobile communication represents many paradoxes: it plays a role in creating comfort, and companionship – friends and lovers can reach you – yet also anguish and anxiety when contacts demand constant communication reciprocation.[32]

Throughout studies, newspaper articles, anecdotal evidence and interviews for this thesis, people often mention how the line between personal and workspace is blurred by mobile technology. The "always on" nature of mobile phones means work calls and messages out of office hours has become completely normal. The accepted view is that people "should be available and accountable to others, visibly and transparently, at any time and place."[33] In many instances people's employer literally becomes embodied in their mobile phone, given presence by the device, reminding people of tasks that still need to be handled.[34] Gender and cultural studies researcher Melissa Gregg uses the analogy of adultery, with an interview respondent who often checked work-email after hours:

> Her relationship to the technology and her work reads as a series of opportunities to be seized in moments free from surveillance – like a clandestine affair that she needs to hide from her partner. Contact with work manifests as a highly intimate relationship, with all the symbols of adultery.[35]

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[28] Castells 245; Ling *New Tech* 4; Turkle *Alone Together* 526.

[29] Castells 248.

[30] Lasén "Mobile Culture and Subjectivities" 2.

[31] Baron 147.

[32] Lasén "Affective Technologies" 2.

[33] Nicola Green in Brown et al., *Wireless World* (London: Springer, 2001) 33.

[34] Green in Brown 41.

[35] Melissa Gregg, "White Collar Intimacy" (forthcoming) 8.

The Blackberry (a famed work phone) handset has a red flashing light (normally reserved for emergencies) to signal the arrival of new messages. Hardly anyone is immune to its ability to create a sense of urgency. Users feel compelled to respond to the waiting email or text message often leading to well-documented instances of Blackberry addiction.[36] In a time before email, mobile phones or laptops, people may have stayed late at the office to finish up work or may have taken a Dictaphone or a file full of papers home for review. Nowadays, the mobile phone is not only a reliable, always-on workhorse but it forms a constant reminder to people that their work is never done.

2.2 Subjectification and Surveillance

Seen in a more philosophical light, mobile phone communication presents many instances of subjectification. Philosopher Michel Foucault defines "subject" in two ways: "subject to someone else by control and dependence, and tied to his own identity by a conscience or self knowledge. Both meanings suggest a form of power which subjugates and makes subject to."[37]

In his writing on surveillance and monitoring Foucault describes the traumatic events of the seventeenth century plague. Affected people were discovered and then separated from the rest of the community. A syndic would be responsible for a particular city street and at a certain time of day would walk up the street requesting residents to stand at the window facing the street to be counted. This meant all people were accounted for and it also ensured they weren't sick – presumably if residents could not stand at the window then they weren't feeling well and suspicions would be raised. A system of "permanent registration" existed.[38]

In many ways, this incident (although a dramatic and dark comparison) echoes some mobile communication practices. Mobile users find themselves part of a community filled with social networking opportunities and through mobile technology they "register" their presence to others. It seems the inverse of Foucault's example is playing out in contemporary communication realms: instead of many registering their

[36] Sophie Goodchild, "Crackberry Addicts," 1 Oct 2006, 15 May 2011 <http://www.independent.co.uk/news/science/crackberry-addicts-why-the-workers-who-cant-switch-off-are-suing-their-employers-418309.html>.

[37] Michel Foucault, "The Subject and Power" *Michel Foucault: Beyond Structuralism and Hermeneutics* (Chicago: University of Chicago Press, 1983) 212.

[38] Michel Foucault, *Discipline & Punish: The Birth of the Prison* (New York: Random House, 1977) 196.

presence to one person (as in the seventeenth century), nowadays one person registers their presence to many. Through messaging platforms and popular location-based applications that reveal people's status and their whereabouts, there is a continuous process of registration occurring. We have become so reliant on mobile phones to coordinate and communicate our whereabouts, activities and emotions with social contacts that the idea of not "registering" or being denied access to mobile technology, implies the very social network that we operate in would simply collapse.

Foucault's discussion of Jeremy Bentham's 1787 Panopticon and the kind of power dynamics it creates is an oft-cited analogy in contemporary Internet debates about surveillance and privacy. With the constant connection most people have to the Internet (through their phones) and the real time location-based possibilities it offers – these are direct concerns for the mobile arena. Foucault dissects the notions of monitoring and surveillance through the lens of the Panopticon and its design. The central premise is that the tower's design creates and sustains an omnipresent "power relation independent of the person who exercises it." Said differently: as it is impossible to see if they are being watched, prison inmates in Bentham's example bear the constraint of power and behave under the assumption that someone is always watching. A mobile user effectively plays both roles: the watched and the watcher. In Foucault's words, "he becomes the principle of his own subjectification."[39]

Although it would be too literal to draw comparisons between inmates and mobile users, this model provides a framework within which the concept of subjectification can be understood. To a large extent, users have traded their online privacy for access to the "network" (and more efficient communication channels). In doing so though, we have become subjects to the network. Surveillance from other people in the network is implicit and constant – to such an extent that is has effectively become normalised.[40] Subjectification is a theme that recurs in nearly all the major areas of research into mobile communication in one form or another. Most of the social effects, practices and behavioural symptoms of the mobile community can be seen through this lens.

While monitoring and surveillance issues are often discussed in relation to large corporations like Google or Facebook or the institutional context of schools, prisons or hospitals – it has far wider implications. The Panopticon model is there to correct

[39] Foucault *Discipline & Punish* 201-203.

[40] Nicola Green, "Who's Watching Whom Monitoring and Accountability in Mobile Relations" *Wireless World* (London: Springer, 2001), 33.

individuals' behaviour so it can easily define the everyday power relations we find in the home, between children and parents or at the office between workers and their bosses.[41] Safe autonomy for children, while hailed by sociologist Manuel Castells as one of the greatest affordances of mobile technology, comes at the cost of increased monitoring and surveillance by parents and peers.[42] [43] Parents and kids alike have formed a "new sort of umbilical cord" through mobile phones. Children live at home longer than in previous generations and some researchers have attributed this partly to technology. Undeniably mobile phone technology can be seen as creating a new dependency between parents and children even influencing when they move out of the home. A study found some U.S students text their parents up to 15 times a day.[44]

On the positive side, school children, following strict schedules in their school and after-school hours, have found a tool that allows them safe autonomy, a kind of safety blanket in case of emergencies as well as the ability to coordinate schedules.[45] It also frees them to be able to communicate privately within their social network. Previously, hours of phatic conversation would be curtailed by having to share access to the household's landline with other family members.

However, the Trojan Horse effect becomes clear when you consider that the cost of autonomy comes in the mail at the end of every month. Mobile bills need to be paid and most children are still reliant on their parents to be 'connected' (unless they have part-time work and buy their own airtime). Simply put, most parents maintain control over their children's communication bandwidth through holding the purse strings.

But the complexity of this relationship extends beyond money. Parents keep a vigilant eye over their children using mobile technology and monitoring mobile instant platforms like MSN chat.[46] Parents can be added as contacts to their children's instant messaging profiles and can be monitored when they are online (when they should be sleeping for example or doing their homework). Mobile technology is instrumental in

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[41] Michel Foucault, *Discipline & Punish: The Birth of the Prison* (New York: Random House, 1977) 203, 215.

[42] Castells 248.

[43] Haddon quoted in Richard Ling, *The Reconstruction of Space and Time* (New Brunswick: Transaction Publishers, 2010) 130.

[44] "Millennials: Confident, Connected, Open to Change," Pew Research Center, 24 Feb. 2010, 8 Dec. 2010 <http://pewsocialtrends.org/2010/02/24/millennials-confident-connected-open-to-change/>; Turkle quoted in "Family Ties" *The Economist*, 10 April 2008,12 December 2010 <http://www.economist.com/node/10950449?story_id=10950449.

[45] Castells 245.

[46] Elloise Bennett, School Administrator, Personal interview, 12 Dec. 2010.

the creation of power relations in the family unit.[47] This does not mean children don't find ways of evading surveillance, in fact they have become incredibly good at it. Techniques include leaving the phones in school lockers or transferring it to friends to avoid being monitored.[48] In this family context, children become subjects, fulfilling both versions of Foucault's definition of subjectivity – as a function of control and dependence.

Often, mobile users monitor the activities of others without actually communicating with them and in so doing they "become objects of information and not a subject of communication."[49] This is clearly not always done in a negative sense – parents will want to make sure children are safe. Concerned friends may want to give directions to visitors from out of town. There are many uses for mobile technology that can have a positive impact. On the extreme opposite, people's most intimate and private communication can be "hacked" by rogue journalists seeking a scoop. Surely there is no greater invasion of privacy?

Foucault writes that the exercise of power is always about "action upon actions" or "a way in which certain actions modify others."[50] In the mobile sense we find we can find plenty of examples of where mobiles play a role in facilitating increased surveillance and therefore begin shaping different power relations as a result. The introduction of 'message receipt' and 'message read' notifications on mobile messaging platforms is a good example. These functions allow people to firstly confirm their message has reached the recipient and secondly that the recipient has read the message. Receipt reports for email have been around for some time already but in the mobile context – one defined by urgency and being hyper personal – this function takes on a more significant dimension. Here, recipients can sometimes feel the increased need to respond quickly (and the potential associated anxiety of that) and the notion that the receiver cannot feign ignorance of receipt or content of the message.[51] Amongst Japanese youth for example, when someone does not return a message immediately a "social expectation has been violated."[52] In this way, mobiles create a level of

[47] Green "Who's Watching Whom" 35.

[48] Elloise Bennett, School Administrator, Personal interview, 12 Dec. 2010.

[49] Foucault *Discipline & Punish* 200.

[50] Michel Foucault, "The Subject and Power" *Michel Foucault: Beyond Structuralism and Hermeneutics* (Chicago: University of Chicago Press, 1983) 219 - 220.

[51] Results of online survey, see p.84.

[52] Ito et al., quoted in David Crystal, *Txtng* (Oxford: Oxford University Press, 2008) 29.

transparency in the communication exchange. Those who are technically adept, may opt to turn this functionality off, but doing so could raise further questions and objections from friends and partners. It seems users find themselves in a "matrix"[53] that they have little direct control over and they are either in or out of – there is no in between. In Foucault's words: "We are neither in the amphitheatre nor on the stage but in the Panoptic machine, invested by its effects of power, which we bring to ourselves since we are part of its mechanism."[54]

However, amongst the jubilant discourse of mobile communication it is worth noting the significance of its effects on people's relationships – specifically power relations. In the same way as the Panoptic principle was described as more than just architectural ingenuity – the mobile phone is not just a miracle technology. It has become a player in the process of subjectification and this has broader effects on people, their behaviour and their relationships. The phenomenon of subjectification and its associated power relations obviously pre-dates the mobile era. However, this study will argue that mobile phone technology presents us with more than just an additional, technologically facilitated communication channel. Specifically, it will propose that new types of relationship behaviours emerge as an unforeseen consequence of the use of mobile phone technology.

2.3 New Codes of Social Interaction

Sheldon: "So you don't think I can achieve the desired level of intimacy required via text messaging?"

Penny: "No"

Sheldon: "It appears the phone companies have been lying to me."[55]

Mobile-mediated communication has facilitated the "redefinition of codes of human interaction"[56] and persistently continues to challenge the rules of engagement between people. Mobiles have become new, dynamic players in our communication

[53] This refers to the demands of the mobile network drawing an analogy with the concept portrayed in the movie *The Matrix,* where "reality" is revealed to be an inescapable, controlled illusion. Only the movie's key protagonists exist in a deep underworld, outside of the matrix.

[54] Michel Foucault, *Discipline & Punish: The Birth of the Prison* (New York: Random House, 1977) 217.

[55] *The Big Bang Theory*, CBS, 7 May 2011.

[56] Lasén, "Affective Technologies" 3; Ling *The Reconstruction* 128.

processes and in so doing, contribute to our perception of information.[57] Ling argues that face-to-face rituals have been relegated to the background as we increasingly mediate conversations through mobiles. As a result, traditional social interaction theories are continuously scrutinised as a new communication terrain rises up complete with new language, cues, symbols and signs.[58]

SMS (Short Message Service) forms one of the cornerstones of mobile-mediated communication, giving rise to some of the most interesting social effects on users.[59] SMS ushered in a new language – a unique form that evolved to originally meet the challenges of small screen real estate, a character limit of 160 and the tiresome process of typing out longer words on a small keypad.[60] It has been described as a new "written orality", happily adopted by many, and eschewed by others.[61]

In developing countries, SMS uptake was greater than in the developed world mainly because of its affordability.[62] But it wasn't just affordability that drove uptake. In the Philippines, a country characterized by its oral tradition, where speech is used to "reproduce traditional hierarchies" text messaging allowed users to uniquely fuse aspects of informal speech with the reflexive nature of writing. Filipinos feel freer to express themselves through text than in face-to-face speech and it affords them a better sense of control in social interaction.[63]

New forms of language have had a deep impact on the social dimension of human interaction. Echoing the Filipino example, Baron highlights the "emboldening effect"[64] that mobile language has on users – many instances of this were found in the interviews conducted for this thesis. This brave and sometimes out-of-character hyper emotionality is a major theme in many studies on texting. In a more unbridled sense, Ling found in a study, that text is a channel where teens, "can say just what I want to say."[65] In studies done into gender and technology young women felt they could behave

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[57] Ling *New Tech* 5; Lasén, "Mobile Culture and Subjectivities" 5.

[58] Ling *New Tech* 6; Ling *The Reconstruction* 128; Baron *Always On* 29, 226.

[59] Vincent et al., 191.

[60] Castells 177.

[61] Leopoldina Fortunati quoted in Castells 183.

[62] Goggin *Cellphone* 75.

[63] Pertierra et al., quoted in Goggin *Cellphone* 76.

[64] Naomi Baron *Always On* 29.

[65] "Millennials: Confident, Connected, Open to Change".

outside the traditional gender roles prescribed to them by parents, peers and society. Texting allowed them to experiment with romantic agency and find new expression in the realm of sexuality.[66]

Emoticons are one of the hallmarks of mobile language. From the first time they were used to clarify a joke at Carnegie Mellon University in 1982, the assumption has been that computer-mediated communication is an impoverished channel. Due to the lack of para-linguistic cues like face and body gestures that face-to face interaction has, emoticons were meant to help avoid confusion – especially with regards to irony and sarcasm. As Baron points out, the other assumption implicit here is that computer-mediated communication is essentially a written version of casual speech.[67] As it turns out, emoticon usage may be vastly overstated. Out of nearly 12 000 words from instant messaging conversations that Baron analyzed amongst students only 49 contained emoticons.[68] As Chapter 4 will reveal, couples feel strongly about the use of emoticons as part of their intimacy game play on mobiles, making it, even in its absence, a defining feature of the communication exchange.

Text messaging took a new and even more fascinating turn with the invention of predictive text or autocorrect[69]. Autocorrect *faux pas* have become cannon fodder for hundreds of email chain letters and jokes – exiting the domain of communication and entering the realm of popular culture. Using autocorrect, an innocent message to a friend like, "You're bringing the Heineken right?" can curiously be autocorrected to, "You're bringing the hermaphrodite right?"[70] In another example: "In Amsterdam, loving the good weather and great musicians" can be transformed into, "In Amsterdam loving the good weather and great nudists." [71]

Overall it seems that computer-mediated communication is still subject to the same challenges that people face in spoken and written language, that emotional expression is often difficult and the functionalities that mobile phones offer, whether emoticons or autocorrect, do not always contribute to solving this tension but

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[66] Bella Elwood-Clayton quoted in Goggin *Cellphone* 76.

[67] Naomi Baron quoted in Vincent et al., 108-109.

[68] Naomi Baron, "The Myth of Impoverished Signal: Dispelling the Spoken Language Fallacy for Emoticons in Online Communication." *Electronic Emotion* (Bern: Peter Lang, 2009) 126.

[69] **Autocorrect** refers to predictive text function on phones that replaces words in sentences that users type, often inserting words that were not what the user intended.

[70] "New Years Eve Party", 6 Jan 2011, 31 Jan 2011 <http://damnyouautocorrect.com/4199/new-years-eve-party/>.

[71] Michael de Souza, Personal interview, 10 May 2011.

sometimes add to it. Perhaps compounded by the volume of communication channels now available, people are currently using text as a way to avoid contact, keep contacts at bay or simply "dial it down." [72] This points to a new kind of relationship behaviour emerging, facilitated by mobiles, which Turkle has labelled the "Goldilocks effect": "Texting puts people not too close, not too far, but just at the right distance." A typical Goldilocks, "takes comfort in being in touch with a lot of people whom they keep at bay."[73] She hints at a nascent phenomenon, characterizing SMS communication, different from the heady early days of flagrant, phatic, never-ending texting marathons.

While face-to-face interaction is often relegated by mobile-mediated communication, social interaction cues certainly don't disappear in the mobile realm.[74] They are simply reinvented and re-emerge in new forms.

2.4 Face-to-Face Communication

In *The Presentation of Self in Everyday Life* Erving Goffman elucidates the ways in which we behave in front of others, revealing a complex spider web of different processes involving a game play of information. Despite the complexities and subtleties of this interaction people are able to rapidly, almost without thinking, process miniscule bits of information about people's behaviour to form an opinion about them. Goffman described these interactions using the metaphor of a stage play: outlining how people sustain their "performance" in front of others in an effort to control the impression they create. "Performers" offer a primary layer of information – the information people tell others when they first meet which helps establish a picture. This includes where they live, where they were schooled and who their friends are. However, "The true or real attitudes or beliefs and emotions of the individual can be ascertained only indirectly…through involuntary behaviour."[75] This unique behaviour is usually out of a person's control when they interact with others. It could be a facial expression (a tense mouth or frown), or a subtle element of their body language like the way they hunch their shoulders. In Goffman's terms these are the two ways people express themselves:

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[72] Turkle *Alone Together* 526.

[73] Turkle *Alone Together* 533.

[74] Ling *New Tech* 5; Lasén "Affective Technologies" 3.

[75] Erving Goffman, *The Presentation of Self in Everyday Life* (New York: Bantam Doubleday Dell Publishing Group, 1959) 2.

the expression a person "gives" and the expressions they "give off".[76] This behaviour alongside other social devices like polite questions and "rituals" like glances form signals that help us form a true impression of others.[77]

The final aim in social interactions is usually to control the impression that others receive of us and how they consequently behave and respond towards us. These expressions are therefore often engineered to suite objectives. What a person says can be selective or untruthful – engineering a scenario to give off a desired impression. Take Goffman's example of a girl in a dormitory who wants to give off the impression that she's popular and so arranges phone calls to be made to her. Observers are free to interpret the impression they get and establish how authentic they think it is. People then match this impression they get against past experiences with similar behaviour and manage their own expectations of that person.[78] This leads to the celebrated benefits of face-to-face interaction – allowance for true observation of people.

2.5 Mediated Communication

If the expressions people give and give off are not observable in mediated communication, is it a poor substitute for face-to-face interaction? And how does this influence cohesion[79] in our relationships? Mentions of mediated communication only make cameo appearances in Goffman's theory of social interaction. However, sociologist Randall Collins is explicit that to engender cohesion a ritual[80] cannot be mediated. Rosalind Picard claims frankly: "Whether in person or over video-telephone, we tend to communicate most affectively face-to-face."[81] Social media researcher danah boyd assessed communication in the online world and claimed users don't perform at the same level of proficiency in the digital world as they do in real life. This was due to their

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[76] Erving Goffman, *The Presentation of Self in Everyday Life* (New York: Bantam Doubleday Dell Publishing Group, 1959) 2.

[77] Goffman quoted in Ling *New Tech* 60.

[78] Goffman *The Presentation* 4-5.

[79] "Where individuals share the same perspective, talk about the same issues and submit to the same ideals." (Ling *New Tech* 57).

[80] Rituals refer to Goffman's notion that people's everyday actions and symbolic gestures (like shaking hands or waving goodbye) form part of social interaction. Further, rituals can be found where people share a mood or are involved in the same activity. Through rituals people feel social solidarity – that they are part of a bigger group or whole (Goffman quoted in Ling *New Tech* 61-62).

[81] Rosalind W. Picard, *Affective Computing* (Cambridge: The M.I.T Press, 1997) 26.

lack of embodiment and the limited digital architecture people have to perform in. In this realm users have to constantly "adjust" to provide context to bolster the representation and ultimately communication process. She said,

> Interactions are limited by what people can convey and perceive in the mediated space. In current systems, both the performer and viewer have limited channels for expression and perception. Thus, much is lost in digital conversations; attempts to convey intention can be frustrating. If these are absent the digital world can be seen to fail individuals and impressions become distorted.[82]

Italian theorist Leopoldina Fortunati specifically speaks of the "body-to-body" interaction that takes place between people.[83] Cybernetics and information-theory scholar, Giuseppe Longo, embroiders on the importance of the "body":

> People tend to use a more restricted vocabulary and to resort to a limited number of grammatical and syntactical structures. And the body disappears. As the vehicle simplifies, so expression and communication risk becoming a bunch of rigid clichés.[84]

Yet despite this seemingly overwhelming scholarly criticism, mobile-mediated conversations continue unabated with boundless popularity. Ling points out that mediated interaction is as effective as co-present interaction – especially when a bond between the interlocutors is already formed.[85] The research in this thesis supports the notion that there are many other, new clues to be exchanged between mobile users that compensate for lack of embodiment and context. It will also show that users are harnessing the mobile space in playful and intimate ways.

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[82] danah boyd, *Faceted Id/Entity: Managing Representation in a Digital World* (Massachusetts Institute of Technology 2002) 37-41.

[83] Ling *New Tech* 6.

[84] Giuseppe Longo, "Body and Technology: Continuity or Discontinuity?" *Mediating The Human Body* (New Jersey/London: Lawrence Erlbaum Publishers, 2003) 27.

[85] Ling *New Tech* 11.

2.6 Computer-Mediated-Communication Theories

Understanding computer-mediated communication goes some of the way to understanding our relationship with mobile phones. Many of the functions associated with traditional desktop computers are available on mobiles, "the computer has disappeared into the mobile phone."[86] Offering a basic perspective, the Reduced Social Cues theory claims that because people using computer mediated communication don't share the same environment and sensory stimulation and have no non-verbal social cues (like glances, facial expression and posture) and para-verbal social cues (like voice pitch and talking speed) to interpret, it is therefore emotionally and socially impoverished.[87]

This myopic view does not take into account the redefinition of these codes of interaction. Mobile communication is after all, underpinned by a very agile and fast-evolving technology and contemporary advancements in this technology can give users many of the same clues as face-to-face communication. As stated previously, they just take new forms. In early forms of mobile-mediated communication users may have lacked the necessary context of callers – now many users share their movements with others using location-based technology. While we may not have facial expression and bodily gestures, we have other clues about when and where messages were sent (chronemic and proxemic information) that helps us navigate social interaction in this new terrain. Ling and Campbell showed that people perceive SMS content differently according to the physical distance or proximity of the SMS sender and the time the message is sent.[88] An SMS message may be interpreted differently if sent out from a location very close (in the adjacent room or town) or very far (from another country) from the actual location of the receiver. The identical message might also have different connotations if sent out from a location familiar or unfamiliar, one that held good or bad memories for the recipient and sender. This is surprising considering that mobile communication is perceived as "location free." Studies show users accept location-based services that they can control. Thus location stamps seem to be accepted as user controlled "cues given" but not as "cues given off."[89]

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[86] Vincent 187; Brown 5.

[87] Ling *The Reconstruction* 111.

[88] Ling *The Reconstruction* 110.

[89] Ling *The Reconstruction* 117-128.

This echoes Turkle's notion of people wanting to keep others at a safe distance through mobile communication, not giving too much information away that may compromise their privacy or hamstring their movements. It speaks of a general trend of trying to regain control of the mobile channel; that users are eager to reclaim ownership of a channel that has been especially noisy and at times intrusive and disruptive.

In Ling and Campbell's study between supervisors and students, day-time SMS messages were rated as significantly more dominant and less intimate, while night-time SMS messages were rated as more intimate and less dominant. Respondents assumed that a night-time message would not be read and reacted upon until the next day, while perhaps a supervisor might expect an immediate response when sending a day-time message. Thus, the day-time message has an immediacy that will exert more influence over the recipient. In addition to the time and place that messages are sent from, other clues outlined in their research are: communication frequency and communication duration.[90]

Especially in romantic SMS exchanges or SMS flirting – response latencies play a large part in giving non-verbal cues to the communicators. Extended response time can be seen as creating an uneasy silence or playing hard to get. While short response times might non-verbally communicate thoughtfulness, eagerness or closeness.[91] Most messaging platforms allow users to actually see when the person is responding to a message and this also plays a role in how people respond. Often users wait to see what the other person has to say before they respond. In some instances users will start typing a message, see the other person is also typing a message, and then decide to hold back until they've received the new message.

According to the Social Information Processing theory, people are able to provide enough social cues during computer-mediated communication in order to create social presence[92]. From this view, computer-mediated communication is therefore as emotional as face-to-face communication. Moreover, computer-mediated communication can reduce shyness and social inhibitions, can foster self disclosure (like

[90] Ling *The Reconstruction* 122-124.

[91] Ling *The Reconstruction* 111.

[92] Social presence has come to be viewed as the way individuals represent themselves in their online environment. (Patrick R. Lowenthal, "The Evolution and Influence of Social Presence Theory On Online Learning." T. T. Kidd ed. *Online education and Adult Learning: New frontiers for Teaching Practices* (Hershey, PA: IGI Global, 2009) 124-139.

revelation of intimate and delicate emotions) and thus lead to hyper-emotionality.[93] This is evidenced in much of the literature and interview material for this thesis.

The Self Presentation theory explores Goffmanian elements in computer-mediated communication. It differentiates expressions or cues given (consciously and intentionally controlled) from cues given off (expressed unconsciously or unintentionally) in computer-mediated communication. While the Social Information Processing theory focuses on controlled non-verbal cues (explicitly including a twinkling smiley to clarify irony) the Self Presentation theory raises the question of cues "given off" in computer-mediated communication. Freudian slips can occur in computer-mediated communication and text messaging both as verbal slips (dubious misspellings) and non-verbal slips such as forgetting to reply or replying to the wrong person.[94]

Being able to communicate in real time seems to improve the impression of closeness and communication efficiency.[95] In messaging platforms user avatars or the user photo might also play a role in the communication exchange. In one interview a husband commented on his wife's mobile instant messaging photo, a sweet picture of her and their child. This photo is ever-present during their text exchanges and rather than becoming "wallpaper" becomes a constant reminder of this wife's nurturing and caring side. This, arguably, influences the tone and pattern of their conversations.[96]

Overall, the research shows that SMS messages do not lack para-verbal and non-verbal cues. People actively include and interpret social cues in their mobile messages; thereby clarifying their relationship, expressing intimacy or distance and/or inferring dominance.[97]

2.7 Social Cohesion

In the past, the loss of social cohesion has been laid at the doorstep of many technological advances: television, radio, landline telephony, personal computers and the Internet.[98] The mobile phone differs from all of these other technologies because for

[93] Ling *The Reconstruction* 111.

[94] Ling *The Reconstruction* 112.

[95] Ling *The Reconstruction* 113.

[96] Darren Booth, Personal interview, 10 Jan. 2011.

[97] Ling *The Reconstruction* 128.

[98] Ling *New Tech* 16.

the first time the device is actually on our body and it literally goes everywhere with us. We answer our mobiles on the bus or at work or even sometimes in the middle of a face-to-face conversation. But, does mobile technology contribute or detract from social cohesion? And how do mobile phones play into both co-present and mediated interaction?

We nurture already established social bonds through mobile-mediated interaction. We "embroider" on face-to-face interactions with reminders of upcoming social engagements, reminisce about the past and maintain social contacts – this helps maintain and develop our relationships.[99] In the interviews conducted for this thesis respondents not only maintain contacts but in some instances mobile communication is their only reprieve from the demands of everyday activities. Users find themselves "flowing" between face-to-face encounters and mediated ones (whether it be through social networks or text messages or mobile conversations). Ling takes it further by saying that,

> Mobile communication supports the development of cohesion by expanding the flow of interaction beyond face-to-face meetings. It plays into the enhancement of social cohesion in small groups.[100]

Castells confirms this view of "flow" but adds that communication channels are often left open, creating a hybrid space composed of wireless communication, physical interaction and online communication/interaction. Peer groups and people with similar interests build on their relationships through mobile communication, in his words by "improving the chances, opportunities and reach of interpersonal sociability and shared practices." A mobile doesn't only increase our access to contacts; it strengthens our strong ties too.[101] [102] The evidence in this thesis supports the notion that people will continue to zoom in on and maintain their closest and strongest relationships by using mobile-mediated communication.

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[99] Ling *New Tech* 2.

[100] Ling *New Tech* 18.

[101] Strong ties refer to those core relationships where people confide in and rely on each other and enjoy relaxing together. This is contrasted with weak ties, which describes friendly arm's length relationships. People in these relationships may exchange information and spend some time together but they are not considered close (Baron *Always On* 221).

[102] Ling *New Tech* 3-4.

2.8 Space and Time

"Thoroughly enjoyed the opera last night – save for the peasants seated in front of us who continued cellphone-messaging during the opera. As if the worldwide web would somehow be the poorer for three hours, for the lack of their plebeian postings." [103]

National Geographic author, Barry Lopez, offers some thoughts about "intimacy of place".

> My guess would be that someone someday will trace the roots of modern human loneliness to a loss of intimacy with place, to our many breaks with the physical earth. We are not out there much anymore...I think about this kind of detachment from the physical world frequently, because human beings, generally, seem to long for a specific place, a certain geography that gives them a sense of well-being.[104]

He hints at our lost ability to connect to the "here and now", to the moment we are experiencing and the objects and people around us. Interestingly, this echoes many mobile researchers' and scholars' thoughts about how mobile technology has contributed to our "disconnect" from our surroundings. This detachment from the physical world has come to characterize our movements in and out of real and virtual worlds – mostly facilitated by our mobile phones. Numerous instances of 'bounded solidarity' can be found in everyday life as we walk the streets, head-down, texting while we walk or even cycle. Even formal occasions, like funerals are not exempt from texting.[105] Is no place sacred anymore? Or is this "disconnect" more symptomatic of a new type of existence? Where our virtual and physical spaces are enmeshed and mobiles are part and parcel of our presence in both?

Mobiles "influence the mood of a place by adding mystery and diversion to normal patterns of perceiving and behaving." In an example familiar to many, people have exaggerated phone calls with friends in public spaces or lovers can have arguments

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[103] Tat Wolfen, Facebook status update 16 Jul 2011, 17 Jul 2011 <https://www.facebook.com/tat.wolfen>.

[104] Barry Lopez, "Coldscapes" *National Geographic* Dec. 2007, 27 Feb 2011 <http://ngm.nationalgeographic.com/2007/12/permafrost/barry-lopez-text/1>.

[105] Turkle *Alone Together* 5651.

over the phone that pedestrians nearby can hear.[106] Generally it seems the rules of public space are being redefined, that traditional etiquettes (whether we like them or not) are no longer the norm. But perhaps Castells' description of mobile communication that "does not transcend space and time" but rather, "blurs spatial contexts and time frames" is the key to understanding this new etiquette.[107] Time, space and activities are being reframed into new paradigms by mobile phones. We can choose our interaction and our interlocutor independent of our space. We do what suits us, moving away from the collective and toward our individual needs and desires. More so, it speaks of the power of mobiles to transfer a mood into a space, to emit a presence that affects others unlike any other wearable technology.[108]

2.9 Body Object

Mobile phones are indispensible to most people.[109] The vast majority of people who sometimes forget their mobile at home would either rush back to fetch it or feel anxious until they retrieved it.[110] Nearly all 18-29-year-old Americans sleep with their mobile phones.[111] When computer scientist J.C.R Licklider's envisioned a new "man-computer symbiosis" in 1960 he could easily have been describing our contemporary relationships with mobiles.

Licklider wrote about two dissimilar organisms that live in intimate association: in this symbiotic relationship humans, "set the goals, formulate the hypothesis, determine the criteria and perform the evaluations" and computing machines will do the "routinizable work". While Licklider envisioned man and machine working together to make decisions and control complex situations it seems that many of our daily decisions (which aren't really that "complex") are being routinely handed over to our mobile

[106] Lasén "Affective Technologies" 3.

[107] Castells 250-251.

[108] Lasén *Mobile Media* 8.

[109] Castells 252.

[110] See p.82 for survey results showing this.

[111] 90%, according to the Pew Research Center ("Millennials")

phones.[112] Users can even use mobile sleep applications to measure the rhythm their sleep patterns (via movement) and calculate the most appropriate time to wake up.[113]

Giuseppe Longo, claims this symbiosis has given rise to a new species - *homo technologicus* – "a symbiotic creature in which biology and technology intimately interact." *Homo technologicus* is not simply an overnight, fanciful creation of scholars but the result of a bio-cultural or bio-technological evolution. According to Longo:

> *Homo technologicus* is not simply "Homo sapiens plus technology," but rather "homo sapiens transformed by technology"; it is an evolutionary unit, undergoing a new kind of evolution in a new environment. The novel symbiont is immersed in the natural world, hence obeys its laws, but also lives in an artificial environment, characterized by information, symbols, communication, and virtuality.[114]

Where previously people's movements from virtual to real worlds were described as a "flow" by scholars like Ling and Castells, this symbiont notion starts to position our movements as less going between these worlds but living simultaneously in a "mesh of virtual and real."[115] It seems a two-way current exists between mobile phones and our bodies. There is a simultaneous "tuning in " happening where mobiles and people are becoming more adept at detecting and responding to each other's subtlest rhythms.
Increasingly it is clear that mobile phones represent much more than just digital assistants. On a pure object level, they hold significant emotional value for us – it is the storage place for treasured messages and pictures and connections. On a relationship level, it represents intimacy and companionship and keeps us almost permanently engaged.[116] On a body level it is almost part of our very fibre. This man-computer symbiosis is rarely turned off, even for sleep. The sentiment can be summed up neatly by a young South African:

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[112] Joseph C.R. Licklider, "Man-Computer Symbiosis" *The New Media Reader* (Cambridge, Massachusetts: The MIT Press, 2003) 4.

[113] Skidelsky, W. "iPhone Sleep Cycle: My Nights with a Strange Bedfellow" *The Observer* 24 Jan 2010, 29 Jun 2011 <http://www.guardian.co.uk/culture/2010/jan/24/iphone-app-sleep-cycle-skidelsky>.

[114] Longo "Body" 23.

[115] Turkle "Alone Together".

[116] Lasén "Affective Technologies" 1.

> I'm trying not to panic but I forgot my Blackberry at home today! Yes the unthinkable happened! I am already feeling withdrawal symptoms coz now I dont(sic) have Twitter, Facebook and GTalk at my fingertips… I want to go home but home is too far away – the world is fading and growing dim…OK maybe the world isn't fading but I am in a state. You don't even notice how much you use your phone till its (sic) far away!! I want my Crackberry!!! * heart rending rob – sad music plays *[117]

Despite its dramatic overtones this quote also hints at the physiological effects that mobile separation has on the body – emphasised by the word "withdrawal." It captures the essence of our relationships with mobiles – as being characterised not just by our appreciation for the device as an essential communication tool but as an affective technology, one that gives rise to emotion in us.

[117] Kangopie, MTN User Forum 25 May 2011, 2 Jun 2011 <http://thescoop.co.za/posts/show/5637&fb=1>.

Chapter 3: The Affective Turn of Mobile phones

A couple share a meal at a busy neighbourhood restaurant in Barcelona. In between mouthfuls of food they take photos of each other with a Blackberry. They pose, pull comical faces and squeal with laughter, visibly enjoying the moment. They immediately upload the photos to Facebook and within a few minutes comments from friends start pouring in. The phone lights up, vibrating, pinging loudly every time a comment is made and the couple, visibly excited and energized by this, huddle around the Blackberry reading comments and giggling. They animatedly compose a response together and the dinner entertainment continues for hours.

In a time of cherished technology there are few devices as intimate as mobiles phones. Their status as "tools" has been elevated many times over as we have quickly developed feelings of attachment, sentimentality and anxiety towards them. Mobile phones have always been hyper personal objects – every aspect of the device has been tuned by us and for us – from the software we install, the wallpapers of friends and special moments we display or the external accessories or ringtones which give outward expression to our feelings.[118]

As this thesis argues, mobile phones have taken an affective turn. This is not limited to their role in mediating affect or as an object of affection but points to them as stand-alone affective agents. Mobiles are not simply inert objects that respond to our whims and wants – they too have a presence. They move us in the same way that people can "move" each other – they are very energetic participants in our "assembly" of human and non humans.[119] They have expressions – derived from the presence they create[120] and they have the ability to transfer affect, to emit or radiate an aura that generates anxiety, pleasure or calm in people or impact the mood of a place.[121] While Chapter 2 focussed on social interaction and the role of mobile phones in creating social cohesion, this chapter aims to locate affect in this process.

Affect is the tent pole of this chapter – from its relationship with the body, its place in the technological realm of affective computing to the more general arena of social functioning. As far back as the time of the philosopher Aristotle – who scrutinized

[118] Lasén "Affective Technologies" 1.

[119] Latour quoted in Lasén, "Affective Technologies" 1.

[120] Lasén "Understanding Mobile Phone Users and Usage" 132.

[121] Lasén "Affective Technologies" 1.

the primary emotions and "passions" – people have been interested in affect. In the late nineteenth century naturalist Charles Darwin wrote in *The Expression of the Emotions in Man and Animals* about the evolutionary significance of emotion. Emphasising its importance, he wrote, "The way in which emotions are expressed and perceived is certainly of importance for the welfare of mankind."[122] In the late 1960s psychologist Silvan Tomkins was the first to isolate affect, as independent of both drives and cognitions – constituting one of the five basic systems of human functioning. Tomkins contributed to our understanding of affective phenomena and their motivational power.[123] Neuroscientist Antonio Damasio's work highlighted the connection between emotion and reason – especially the case studies of Phineas Gage and patient Elliot – illustrating that emotion and reason form part of a symphony that is simply not "in tune" if one or the other is absent. Emotion and reason are essentially bedfellows to normal social functioning and rational decision-making in people making it a crucial player in daily dynamics.[124]

3.1 Affect

"Affect gives you away: the telltale heart; my clammy hands; the note of anger in your voice; the sparkle of glee in their eyes. You may protest your innocence, but we both know, don't we, that who you really are or what you really are, is going to be found in the pumping of your blood, the quantity and quality of your perspiration, the breathless anticipation in your throat, the way you stop yourself from grinning, the glassy sheen of your eyes. Affect is the cuckoo in the nest, the fifth columnists out to undermine you; your personal polygraph machine."[125]

Affects form proof that bodies (human and non-human) are constantly immersed in and among the world's rhythms. They are forces that create transitions – physical ones, changes in feelings or the actualisation of something – circulating

[122] Charles Darwin, *The Expression of the Emotions in Man and Animals* (London: Julian Friedman Publishers, 1979) pg I.

[123] E. Virginia Demos, *Exploring Affect: The Selected Writings of Silvan S. Tomkins* (Cambridge: Cambridge University Press, 1995) 18.

[124] Picard *Affective Computing* Preface.

[125] Ben Highmore, "Bitter After Taste: Affect, Food and Social Aesthetics" *The Affect Theory Reader* (London: Duke University Press, 2010) 118.

between and sticking to bodies.[126] Affect is an autonomous force, an energetic dimension, a 'capacity' alongside or other than conscious knowing that drives us toward movement and thought.[127] [128]It is transmitted between bodies like a contagion and is unformed and unstructured and aroused by factors that people have little control over.[129] [130] [131] Affects "act together to produce an analogue of the particular gradient or intensity of stimulation impinging on the organism."[132] To more clearly define it and perhaps better understand it, affect is often equated with intensity.[133] In Tomkins' words:

> Affect either makes good things better or bad things worse, by conjointly simulating its activator in its profile of neural firing and by adding a special analogic quality which is intensely rewarding or punishing.[134]

The relationship between affects and mobile phones becomes clear with the knowledge that "the face is not the only vector of mediatised affect contagion." Our mobile phones' ringtones, flashing lights or message-arrival sounds function at this level too. Mobiles can "generate feelings that mobilize the bodies capacity for synesthesia, in which affect seems to act as a switchboard through which all sensory signals are passed."[135] Especially in the mobile realm users perceive "sense content" (like a flashing red light indicating a new message) with feelings such as excitement, anxiety or anticipation.[136]

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[126] Melissa Gregg, "An Inventory of Shimmers." *The Affect Theory Reader* (London: Duke University Press, 2010) 1.

[127] Anna Gibbs, "After Affect: Sympathy, Synchrony, and Mimetic Communication." *The Affect Theory Reader* (London: Duke University Press, 2010) 187.

[128] Brian Massumi, "The Autonomy of Affect" in *Cultural Critique*, 31 (Minnesota: University of Minnesota Press, 1995) 96.

[129] Eric Shouse, "Feeling, Emotion, Affect." M/C Journal 8.6 (2005) 14 Aug. 2011 <http://journal.media-culture.org.au/0512/03-shouse.php>.

[130] Gregg " An Inventory of Shimmers" Introduction.

[131] Gibbs 191.

[132] E. Virginia Demos, *Exploring Affect: The Selected Writings of Silvan S. Tomkins* (Cambridge: Cambridge University Press, 1995) 19.

[133] Massumi "The Autonomy of Affect" 88.

[134] Demos 20.

[135] Gibbs 192.

[136] Massumi quoted in Gibbs 193.

Throughout the research threads done by social scientists, psychologists and other theorists into the importance of emotion – if there is an interest in the mind or body this leads to concern and interest with affect.[137] The body forms a key part of the transmission of affect – it is "radically open, absorbing impulses quicker than they can be perceived."[138] Bodies participate in the transmission of affect – becoming affected and affecting – acting as an "interface that becomes more and more describable when it learns to be affected by many more elements."[139] [140]Affect escapes the confines of a particular body whose vitality, or potential for interaction it is and is released to impact other bodies or places.[141]

Linguistic expression plays a vital part in the amplification or dampening results of affect. [142] Even in infancy, movement and language have been synchronised.[143] Language in this way is implicated with rhythm and movement. As social theorist Brian Massumi emphasised, it can act at a distance, connecting bodies and directly impacting them.[144] [145] This observation helps locate the new linguistic forms of the mobile medium and the importance of language in expressing and conveying emotion.

3.2 Emotion and Reason

Emotions are no mere luxury but essential to rational thinking and normal social behaviour. Reason, emotion and feelings are not so much connected to each other as they are "enmeshed" and that the absence of emotion and feeling can break down rationality and render wise decision making impossible. While our strategies of human reasoning are established in our formative years, being able to use them properly

[137] Demos 34.

[138] Massumi 89.

[139] Massumi 2.

[140] Latour quoted in Gregg 11.

[141] Massumi 96.

[142] Massumi 86.

[143] Researchers working with infants and mothers found that when they viewed slowed-down footage of mothers talking to their moving babies that the infants' wriggling and kicking movements were synchronised with the rhythm of their mothers' voices (Gibbs 197).

[144] Gibbs 198-201.

[145] Gibbs 198- 201.

depends on our ability to experience feelings.[146] Emotion plays a part in helping us evaluate options, make decisions, navigate social convention, prioritize and perform tasks in our work and home lives.[147] Damasio was not the first to point this out, Tomkins wrote in 1962:

> Reason without emotion would be impotent, emotion without reason would be blind. The combination of emotion and reason guarantees man's high degree of freedom.[148]

However, Damasio's patient case studies bring the concept into sharper focus and later in this chapter provide an analogy for how computers currently communicate with humans – without emotion. Damasio discusses the now well-known case of 25-year-old Phineas Gage. Gage, a construction foreman in New England in the mid 19th century, miraculously survived a small explosion that sent an iron rod flying clean through his skull.[149] At first Gage seemed to have survived the accident unscathed apart from his entry and exit wounds. He even travelled upright en route to the doctor, stepped off the ox cart himself and waited, sitting upright, for the doctor to arrive. But, as his external wounds healed it became obvious he wasn't the same man. Although his instruments of the mind – like attention, perception, memory, language and intelligence - were intact, his former temperate and much-liked personality turned dark. He swore, became impatient, fitful, capricious, obstinate and irreverent and had little respect for social convention. These were not things that characterized him prior to the accident. His family and friends claimed he had a significantly altered. His employers, who previously lauded him, did not take him back as a result of his new personality. "Gage was no longer Gage".[150] After losing his job and connection with his family, Gage joined a travelling circus, did odd jobs and even travelled to South America but never led a "normal" life again. He died at age 38.[151]

Damasio drew the following conclusions from the case study: "…Gage's strategies for reasoning were compromised. He lost something uniquely human, the ability to plan his

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[146] Antonio R. Damasio, *Descartes' Error: Emotion, Reason and the Human Brain* (New York: Avon Books, 1994) sleeve text.

[147] Picard

[148] Tomkins quoted in Carol E. Izard, *Human Emotions* (New York: Plenum Press, 1977) 51.

[149] Damasio 5.

[150] Damasio 8.

[151] Damasio 10.

future as a social being."[152] That this disassociation[153] of the darker or "impaired" character of Gage and his intact instruments of the mind could be explained by the damage done to his frontal lobe.[154] Damasio asserted that,

> There were systems in the human brain dedicated more to reasoning than to anything else, and in particular to the personal and social dimensions of reasoning. The observance of previously acquired social convention and ethical rules could be lost as a result of brain damage even when neither basic intellect nor language seemed compromised.[155]

In another case study with a patient called Elliot, who also suffered frontal lobe damage due to a tumour (and its removal), Damasio showed how he, like Gage, altered due to brain damage. Prior to his tumour he was a responsible person with a good job and family. This case was different in that Elliot's character didn't turn nefarious after his illness but rather he became unnecessarily obsessive and unable to follow schedules. He could start a task but became side tracked and then engrossed in smaller details often spending hours, sometimes days, pouring over the same documents. He was unable to hold down a job or make sensible decisions and sadly lost his job and connection with his wife too.[156]Elliot, when confronted with a relatively simple decision like when to make an appointment for, he would take an embarrassing long time to make a choice. Besides not feeling embarrassed by this (like a normal person would) he also failed to make the links between bad feelings arising out of dangerous decisions he makes, so as a result, he kept repeating these kinds of decisions. [157]

Initially Damasio thought that Elliot's tumour had damaged his ability to reason. Tests, however, showed that what had been impaired instead were his emotions. Elliot no longer felt anything. Damasio described him as a "cool, detached and unperturbed by potentially embarrassing discussions."[158] He could summarise the choices available in a

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[152] Damasio 18-19.

[153] Dissociation is a partial or complete disruption of the normal integration of a person's conscious or psychological functioning (Paul, F. Dell, O'Neil, J. A. Preface. *Dissociation and the Dissociative Disorders: DSM-V and Beyond* (New York: Routledge, 2009) xix-xxi.).

[154] Damasio18

[155] Damasio 10-11.

[156] Damasio 37.

[157] Picard *Affective Computing* 11

[158] Damasio 35.

given situation as well as anyone else, without his emotions to guide him he could not actually make a choice. And, as probably happened with Gage, that loss of emotion also changed his self."[159] Elliot was no longer Elliot.

According to Damasio, Gage and Eliot's impaired characters were disassociated from the otherwise intact cognition and behaviour and neither led normal lives again.[160] Both examples lead to the same point: that emotion and reason form part of a symphony that is simply not "in tune" if one or the other is absent. Emotion and reason are essential bedfellows to normal social functioning and rational decision-making in people. Damasio makes it clear that emotion is a critical part of how people function in everyday scenarios and tasks. This perspective on emotion highlights its ability not only as a fundamental component in social interaction but also for our very functioning in society.

3.3 Emotion and Behaviour

A definition of emotion comes with the knowledge that it cannot be isolated, but forms part of a system of interrelationships. These span neural, expressive, and experiential parts. Since Darwin wrote about emotion there has been substantial evidence supporting his theory that "emotions… are innate and universal."[161] Experiments by researchers like Paul Ekman into the taxonomy of facial expressions have revealed uniform expression of emotion in culturally diverse groups, leading to the assertion that they are universal and genetic in origin.[162]

Undoubtedly, emotion, and how people perceive it, can have a large impact on our behaviour. Indeed, deciphering human emotions is fraught with challenges. Even in face-to-face meetings there are enormous margins for error. People often misconstrue signs and signals, confusing shyness for snobbery or brashness for confidence. After all, emotion is a deeply complex, nuanced and varied landscape to navigate. A clear starting point for recognizing emotion is the face. It's here that we gather information about a

[159] "Captain Kirk's Revenge" *Economist* Vol. 381 Issue 8509 (London: The Economist Newspaper Limited, 2006) 4-7.

[160] Damasio 12.

[161] Izard 17.

[162] "Captain Kirk's Revenge"

person's emotional state.[163] Not only can we recognize the types of emotions people are experiencing but we can also differentiate between the genuine and fake ones too. Ekman's well-known Facial Action Coding System (FACS) sought to taxonomize emotional responses – like anger, disgust, fear, joy, sadness and surprise – according to standard facial expressions in people. Ekman's work is liberally referenced in many experiments recognising affect in humans by computers, as will be discussed later in this chapter.

Consider a very simple example of when a friend keeps you waiting at a meeting spot. While you have no idea what happened to her, you develop feelings based on your thoughts and assumptions, which can range from anger at her apparent tardiness or concern for her safety. However, her behaviour when she arrives will ultimately determine your response. If she displays no remorse for being late and acts in a carefree and unaffected way then you will most probably remain angry. But, if her face, posture and voice register anxiety and she's completely flustered and obviously remorseful that she has kept you waiting, your anger may switch to concern.[164] Reading emotion in others extends past observing their facial expression (although this is an important source) to things such as posture and voice intonation as discussed later in this chapter.
In mobile-mediated communication many of these non-verbal cues which "colour in" communicative exchanges and social interaction are absent. Despite some unique mobile textures that seek to fill these gaps in expression as discussed in chapter 4, it is generally perceived as an impoverished medium for conveying meaning and emotion. One of the first steps for machines to recognise emotion in people is interpreting facial expressions. When considering the ubiquitous and frequent use of mobile phones and the inherently affective nature of people's communication; the expectations are high that mobiles need to be able to "deal" with emotion. This places additional significance on the technology to become more agile and adept in recognizing, mediating and expressing affect.

3.4 Affective Computing

So why would people want computers to express or interpret, let alone *have* emotions? Computers regulate most of our everyday lives, and we spend most of our

[163] Paul Ekman, et al. *What the Face Reveals: Basic and Applied Studies of Spontaneous Expression Using the Facial Action Coding System (FACS)* (Oxford: Oxford University Press, 1997) 469.

[164] Picard *Affective Computing* 5.

time with laptops and have mobile phones permanently attached to our bodies. So why would we want to own a moody mobile phone? Or an overly enthusiastic iPhone that keeps correcting the tone of our emails? People generally consider computers as the bastions of "logic, rationality and predictability" not as machines with emotions. However, for richer, more meaningful interaction, affective computers will have to understand what we say *and* how we say it. [165] [166]

Affective computing is "Computing that relates to, arises from or deliberately influences emotions." The major premise is that for computers to communicate naturally with us they need to have emotional skills, like being able to recognise emotions as well as be able to express them.[167] To have emotional skills assumes that computers also *have* emotions.[168] But to date, many artificial intelligence systems are much like Damasio's patient Elliot –

> They have above average knowledge of some area of expertise, usually encoded as huge set of rules, but they are relatively unintelligent in making decisions. They are unable to associate judgments of value and salience with important decisions.[169]

The idea that computers could have emotions presupposes that they possess consciousness. This is not a subject that can be explored in this thesis. But, affective computing does give a departure point into understanding how computers recognize emotion in humans. To do so they would need to understand the physical manifestations of emotion. As discussed previously, the influence of emotion takes shape in the body through facial expression but also voice intonation, gestures, movement and posture. Other forms include respiration, heart rate, temperature, perspiration and blood pressure.[170]

Most attempts to automate recognition of facial expression are based on Ekman's Facial Action Coding System.[171] One such research experiment was FAIM (Facial Affect in Instant Messaging system) – which aimed to use facial recognition in

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[165] Rosalind W. Picard, *Affective Computing* (Cambridge: The M.I.T Press, 1997) 1.

[166] Picard *Affective Computing* 27.

[167] Picard *Affective Computing* 2.

[168] Picard *Affective Computing* x.

[169] Picard *Affective Computing* 11.

[170] Picard *Affective Computing* 26.

[171] Picard *Affective Computing* 26.

order to improve the bandwidth of text-based messaging in digital communication tools. The system used a computer's video camera to capture a user's facial expression while he or she wrote an instant message and categorized it into one of seven states – happy, surprised, agreeing, disagreeing, confused, indecisive, and neutral – according to certain criteria such as the shape of the user's mouth or head gestures. This information was then represented by a system-generated cartoon animation that accompanied the message that was meant to give the receiver additional cues to understanding the text communication.[172] In this example, the computer merely acts as a conduit for additional information to augment and contextualize the interaction. The computer is not responsible for any "interpretation" necessarily but relies rather on rules for interpreting emotion.

Similarly, finger pressure is a helpful motor output that can be used in human-computer interaction to gauge sentic expression.[173] To understand this concept, consider Sarah Parmar, a 23-year-old carbon emissions broker living in London with her boyfriend. She is very attached to her iPhone 3. She enjoys shopping and going out with the girls. She loves having her nails done. The only draw back is that the haptic[174] technology of the iPhone's touch screen does not recognize synthetic material – her false nails. She says attempts at typing a message to her boyfriend are very "frustrating". She says she abbreviates messages, perhaps with less emotion, as a result of her frustrated mood.

The iPhone in its role as affective computer could recognise a user's frustration levels (thereby interpreting their emotional state) by sensing the pressure of a finger tap or even repetitive motion. Affective computers recognize movement. This pressure and repetition of an action can be indicators used to train the phone to recognize emotion in users and then respond accordingly. In the case of the iPhone it is a moot point – the phone will not recognize the tapping because it doesn't respond to synthetic fibres. But what if it did? It will surely prevent the user frustration filtering into the tone, content and length of the messages and perhaps influencing the nature of interaction between Sarah and her boyfriend. So recognizing emotion allows the computer to

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[172] Boehner, K, et al., "How Emotion is Made and Measured" *International Journal of Human-Computer Studies* Vol 65 Issue 4 (Philadelphia: Elsevier, 2007) 280.

[173] Picard, R.W. "Affective Computing" *Perceptual Computing* (Cambridge: M.I.T Media Laboratory, 1995) 5.

[174] Haptic technology is a tactile feedback technology that takes advantage of a user's sense of touch by applying forces, vibrations, and/or motions to the user. (Gabriel Robles-De-La-Torre, "International Society for Haptics: Haptic Technology, An Animated Explanation" <http: Isfh.org>.)

understand the emotional state of its user and formulate a response, presumably allowing mediated conversations to take place with fewer hindrances.

Similarly, when predictive text keeps inserting the incorrect word to users conversations (see interview with Don Bear in Chapter 4) the repetitive nature of the user's key strokes will allow the phone to sense frustration and prevent users from shortening or altering the tone of the message based on their frustration.

Critics of affective computing argue that it undermines the very principles on which it was based and that emotion should be seen as interaction rather than informational bits. Emotion in this view is "dynamic, culturally mediated and socially constructed and experienced."[175] The point is to see and understand emotion as part of a bigger narrative picture: "feelings are not substances to be discovered in our blood but social practices organized by stories that we both enact and tell."[176] [177] Most importantly, affective computing pays little attention to the body's role in communication exchanges. We live, develop and are nourished through interaction with other people and we transfer intensity between bodies. This is a key part of the communication exchange between people. [178] In Sarah's case, she is affected by her experience with the phone – the phone is affected and affecting – but it doesn't end there. Affect is amplified from its initial source rippling through bodies to Sarah's boyfriend.

3.5 Recognizing Emotions

Although emotion affects people differently, the signs are always evident in the body. Emotions affect the level of electrical activity in the brain, muscle tension in the face and body as well as the circulatory, respiratory and visceral-glandular systems.[179] There are many physiological responses that might potentially be combined to assist recognition of emotional states. These include heart rate, diastolic and systolic blood

[175] Boehner 257.

[176] Michelle Rosaldo quoted in Boehner 275.

[177] In evidence gathered in the online survey for this thesis respondents commented on the simple use of an X to sign off text messages. Generally perceived as a sign of affection, some respondents commented: "We don't use x in Portuguese" and "The X is not a "thing" in my native language." See results on p.87.

[178] Giuseppe O.Longo, "Body and Technology: Continuity or Discontinuity?" *Mediating The Human Body* (New Jersey/London: Lawrence Erlbaum Publishers, 2003) 26.

[179] Izard 18.

pressure, pulse, pupil dilation, respiration, skin conductance and temperature. These responses are most applicable when considering mobiles as "wearable computers."[180]
In a project titled 'Emotional Cartography' artist and researcher Christian Nold illustrated how this could work. In his bio-mapping project he asked respondents to wear a simple bio-mapping device – a biometric sensor that measures galvanic skin response and a GPS all rolled into one. It ostensibly measures the sweat levels of the wearers' fingers that serve as indicators of emotional arousal (although this seen as an indication rather than an definitive gauge). Respondents then walked around their neighbourhood and the device recorded their emotional highs and lows mapping them to geographic locations.[181]

These wearable devices are effectively mini affective computers able to "recognize physiological components of emotion, and to infer the likely emotional state underlying these components."[182] Mobile phones, thanks to their intimate relationship with users' bodies, are perfectly positioned to measure physiological responses like heart rate augmenting mobile communication. For example: A text message such as, "Running late" could be imbued with new meaning if the recipient knew the sender was in an agitated state. The sender's heart rate would be high, indicating stress or heightened activity.

Similarly voice is one of the key emotional clues in communication. From a young age people can recognise anxiety, anger and happiness in a voice. As Nicholas Negroponte noted, "Almost any pet can tell when you are angry, but a computer does not have a clue. Even puppies know when they have done wrong; computers don't."[183] In the mobile context there are simple ways for devices to gauge emotion simply by collecting data based on the intonation of a caller's voice. This information could be reflected as a colour on the handset of a receiver to give additional non-verbal cues to conversations (assuming the receiver did not recognize this intonation themselves). Something as simple as a person's first greeting in the morning to the computer "Good Morning" will give it enough affective information to be able to calculate what news stories to serve up (maybe you need cheering up) and/or what to do with regards to

[180] Rosalind W. Picard, "Affective Computing" *Perceptual Computing* (Cambridge: M.I.T Media Laboratory, 1995) 29.

[181] Christian Nold, *Emotional Cartography Technologies of the Self* (London, 2009) 7.

[182] Rosalind W. Picard, *Affective Computing* (Cambridge: The M.I.T Press, 1997) 30.

[183] Nicholas P. Negroponte, *Being Digital* (New York: Vintage Books, 1996) 92.

communication flow.[184] Ultimately, if mobiles could also recognise people's "flow states" (when people are deeply engaged in task) then they would know not to interrupt and could redirect incoming communication in order to avoid disturbance.[185]

Reading physiological responses is clearly already possible in the realm of mobile technology. It has, in part, already been developed;[186] giving further credence to the idea that *recognising* emotion in humans is *not* the biggest challenge for computers. However, mediating emotion does not only rely on physiological responses but is a collection of influences including the history of the relationship, social context as well as cultural influences. Ultimately the transfer of affect will rely on these factors too.

3.6 Mobile Phones as Affective Technologies

"Sitting in silence in the corner of a dark room drinking a good glass of red wine with the glow of my iPhone and FB for company, waiting for my 2.5 yr old to finally go to sleep."[187]

Emotion is one of the most important, natural and social parts of human communication. Even in its subtlest form – a smile or wink – it shows our communication efforts have succeeded – that we are understood.[188][189] Besides contributing to a richer quality of interaction, emotions also help guide people's perception and attention, directly impacting a person's ability to interact in an intelligent way.[190] [191]

As we turn to mobile-mediated conversations, affect forms a natural part of computer-human interaction.[192] They also elicit emotion from us and mediate it.

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[184] Rosalind W. Picard, *Affective Computing* (Cambridge: The M.I.T Press, 1997) 106.

[185] Picard *Affective Computing* 104.

[186] Amongst others, Nokia has a pilot project called Push Snowboarding where the physiological responses of snowboarders are measured to gauge their emotional states. 14 Aug 2011, <http://www.pushsnowboarding.com/tech/>.

[187] Susan Magni, Facebook status update 23 Jul 2011, 29 Jul 2011 <https://www.facebook.com/Susan.magni>.

[188] Picard *Affective Computing* 15.

[189] Ernest G. Schachtel quoted in Izard 23.

[190] Carroll Izard quoted in Picard *Affective Computing* 7.

[191] Picard *Affective Computing* 2.

[192] James Averill quoted in Picard *Affective Computing* 14.

Mobiles have been defined as affective technologies because they are "objects which mediate the expression, display, experience and communication of feelings and emotions". As the interviews in Chapter 4 will show, there is substantial evidence supporting this.[193] But most importantly mobiles cannot only be seen purely through the lens of human-computer interaction. Their existence creates an "intensity" or affect that is transmitted and amplified beyond the device into the atmosphere as well as other people often shaping the emotional dynamics between people.

Ling and other researchers emphasise the role mobile phones play in reinforcing strong ties. Japanese mobile researcher Misa Matsuda reveals how Japanese youth are, contrary to popular assumptions, highly selective about their mobile connections.[194] Mobile phones, as discussed in Chapter 2, play a role in creating social bonds and cohesion as well as giving "virtual life" to the presence of family members, friends and colleagues. In some cases people become embodied in the device itself. Mobiles give us the ability to communicate feelings and thoughts in (near) real time that in turn generates emotion.[195] As mobiles mediate emotion between people they create affective bandwidth. This is precisely what separates them from other wearable technologies like iPods. In contrast iPods, despite containing sentimental and emotive music, do not possess the same affective bandwidth and are therefore unable to create the same relationship of intimacy with users. As touch and intimacy go hand in hand (and pleasures of the body and affection) the evolution of mobile handsets to include haptic technology further cements the affective relationship we have with them.[196]

Mobile prototypes produced at the Design Research Lab in Berlin behave more like hamsters than communication devices with a mechanical "breath" and "heartbeats." Both of these physiological reactions can become accelerated in response to emotion: like when a new lover calls it creates a kind of humping action in the handset and agitation when the user misses calls. To calm the device down the "tech hamster" responds to patting and loving strokes from the user. The researchers' rationale was "to make mobile phones more intuitive, organic and ultimately more human."[197] Other models of these prototypes make use of the tenants of affective computing through

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[193] Lasén "Affective Technologies" 1.

[194] Misa Matsuda, "Discourses of Keitai in Japan" *Personal, Portable Pedestrian: Mobile Phones in Japanese Life* (Cambridge: The MIT Press, 2005) 30.

[195] Lasén "Affective"1.

[196] Lasén "Affective"4.

[197] Fabian Hemmert, "The Shape-Shifting Future of The Mobile Phone" Sep 2010, 27 February 2011<http://www.ted.com/talks/fabian_hemmert_the_shape_shifting_future_of_the_mobile_phone.html>.

devices such as weight to help users navigate cities – the mobile gravity centre shifts according to the direction the user needs to take, which helps users who want to keep an eye on the road but also for users who are vision impaired. A more outlandish prototype allows for liquids to be expressed through the handset, simulating a telecommunicated "kiss" over a distance.[198]

While these prototypes represent the start of mobile affective computers, in their final incarnation they require understanding of both physical and cognitive parts of emotion.[199] Seen from the opposite perspective, there is little doubt that people's perception of interaction with mobiles is more owner-pet than person-machine. When users speak about their mobile phone they say things like, "sorry for this interruption, let me kill that" indicating the perceived life force in the machine. Many phones have chirping or barking sounds for ring tones – normally associated with animate not inanimate objects. One user even describes a "fight" she has with her mobile as if it was a person: "Love my iPhone but not when she fights with me...big three hour fight! yah now we friends again... "[200] As another user commented: "Phone is dead, dropped it in water, very frustrating, feel like I have lost a limb – ridiculous."[201]

Undoubtedly, people have developed "feelings" for mobile phones, which far surpasses the connection people have with other technology. More so, and perhaps too ephemeral to label, is the ability of mobiles to transmit affect to people and spaces. A phone, sometimes independent of user interaction, can generate affect and the enhancing or dampening energies these affects entail can enter others.[202]

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[198] Fabian Hemmert, "How Can We Make Mobile Communication More Emotional" Nov 2010, 27 Feb 2011<http://www.youtube.com/watch?v=-3NKVnRN7kY>.
[199] Picard *Affective Computing* 23.

[200] Michelle Wood, Facebook status update 23 Jul 2011, 29 Jul 2011 <https://www.facebook.com/michelle.wood>.

[201] Bianca Talpert, Facebook status update 1 May 2011, 3 May 2011 <https://www.facebook.com/bianca.talpert>.

[202] Theresa Brennan, *The Transmission of Affect* (London: Cornell University Press, 2004) 3.

Chapter 4: Research

4.1 Introduction

It does not take long for the inherent paradoxes and contradictions of mobile phone usage to make an appearance in interview discussions. In this chapter, a person would describe their partner's phone as "evil" but also as a "lifeline." People reminisce about their first phones and in the next breath call themselves "leaders of the luddite revolution" – averse to any mediated forms of communication. While one interviewee said her phone makes her "tired" another said it facilitates sexual chemistry that would otherwise be absent from her marriage. These oppositions and tensions of the medium form part and parcel of the lived and personal experiences of couples[203] using mobile phones – in their own words. Nine couples were interviewed in various colourful city venues across London and Amsterdam: from central London restaurants, north London parks to Amsterdam coffee shops, museums and homes. All individuals, interviewed between November 2010 and June 2011, are friends of the author or in the author's social network. Interviewees' nationalities include British, South African, German, Irish, Polish and Australian with an average age of 35 years old[204]. All are residents in either Amsterdam or London and on average, had been together for five years at the time of the interviews. All interviewees are of comparable economic circumstance.

The motivation for choosing couples for this research sample was because of the high propensity for emotional exchange. Due to the nature of the subject matter, amongst other considerations, the interviews were face-to-face, semi-standardised and conversation-style. The same questions were asked each time, but the sequence was altered and the flow was not rigid, which allowed people to talk freely in a 'guided conversation'.[205] Interviewees were encouraged to be as spontaneous as possible about contributing information, including saved messages. Observations of the behaviour of respondents during the interview process were collected as part of field notes. All the conversations were recorded barring three that were transcribed as the respondents spoke.

Overall, interviewees described their relationship with mobile phones using animated and hyper-emotional language. They gave their thoughts on how their phones

[203] Names of the couples have been changed to protect their privacy.

[204] Barring Katy (24) and Gunter (25).

[205] Gilbert 247.

not only *mediated* emotional content, thoughts and feelings but also *created* feelings of intimacy, desire, safety, anxiety, stress and happiness. One aim of the interviews was to understand how deep the affective relationship is between people and mobiles. Therefore, questions were focussed on how affect is mediated, given rise to by mobiles and influenced by mobiles.

Broadly, the questions were grouped according to people's attributes, behaviour, attitudes and beliefs. The conversations naturally first gravitated towards how interviewees used their phones in their everyday rituals and then how they conveyed emotion using mobile-mediated communication. Quickly the conversation turned to people's attitudes towards their mobile and their feelings on how mobile-mediated communication forms/facilitates intimacy with others. Towards the end of many conversations, when people had given their relationship with mobile phones some thought they voiced their beliefs about mobile practices. Generally people hold very strong views on mobile-mediated communication and the power of technology to augment and influence their affective relationships.

4.2 Reliability

The attitudes and beliefs expressed in these interviews were taken at face value. In other words, the interviewer did not directly observe the mobile behaviour of interviewees. In some instances evidence was shown through text messaging shared by respondents and mobile behaviour during the interview. Respondents may have postured to portray a certain impression for the interviewer, as in the interview with Joy Kruger and Michael Van Beek. In this instance Joy made a concerted effort to create the impression that she is averse to mobile-mediated communication even though various slips and admissions in the interview pointed to the opposite. How some people describe their behaviour and how they actually behave in a real life do not necessarily match.[206] This means that information gathered needs to be considered as a behavioural indicator and not a consummate definitive, considering this attitude-behaviour problem. It also means that the kinds of impressions respondents try to give off become part of

[206] This point is well illustrated in work conducted by researcher LaPiere. In 1934 he travelled throughout the United States with an oriental couple sleeping overnight at 66 lodgings and eating at 184 restaurants. On only one occasion were the travellers refused service based on the ethnicity of the couple LaPiere was travelling with. Six months after the trip LaPiere sent out a questionnaire to these same establishments asking whether they would serve oriental customers. The resounding answer (barring one) was No. The point is that what people say in surveys is not necessarily reflective of their behaviour in real life. In reality causing a scene by refusing customers is far more difficult than saying that you would actually do this on a survey questionnaire (Gilbert 208 -209).

the research into how attitudes towards mobile communication are changing.

There was a fair amount of discussion between respondents and the interviewer and in a few (limited) instances this will have contributed to the co-construction of meaning and interpretation of emotional responses.

Measuring emotional intensity is a challenge due to its subjective nature and how it is constituted. If emotion was universally viewed as "informational bits"[207] then measurement of it would be easy: respondents would simply be asked to rate it on a scale. However, emotion should be seen more broadly, as a social and cultural product and therefore only understood as a culturally embedded phenomenon. In this way, ratings may be influenced by the varying cultural backgrounds of the respondents. In addition, emotion is seen as interactional – as a product of the interaction which gives rise to it.[208] Many interviewees urged each other to remember where they were and what they were doing exactly to be able to rate the emotional content in the message. Respondents saw this an important aspect of their rating. But overall, in these interviews, when respondents were asked to rate the emotional intensity of the feelings or messages[209] it was done with a view to gauging trends rather than gathering definitive answers.

4.3 Interviews

Couple 1: Sarah and Alex Draper, London, England

Sarah (34) a graphic designer and stay-at-home mom and Alex (38) a financier, live with their two daughters. They have known each other for 10 years and been married for four. Although this interview was meant to include Sarah and Alex, when it began, Alex excused himself seemingly because he did not want to "talk about his feelings." As it turns out later Sarah explained that he is shy about their text messaging – which is mostly explicitly sexual messages and occasionally subtler innuendo. This revelation was a surprise considering the impression Sarah and Alex give off as a couple. They are an impeccably groomed, their house is neat and pretty – outwardly they are a conservative couple. Very little in their outward appearance hints at the deeply sexual communication that they share "backstage" on text.

[207] Boehner 289.

[208] Boehner 278-279.

[209] On a scale of one to five where one represented the least intense and five the most intense.

Sarah is currently at home most of the day looking after their two daughters while she describes Alex's work life as "very busy". She says they use text a lot for two types of messages: a reassuring one where they just touch base and confirm when Alex will be home and more "raunchy" messages that involve explicit sexual content.

Sarah says Alex initiated the "sexy texts" in the beginning of their relationship. According to Sarah, the early dating period with Alex was, "really intense with lots of chemistry and sexual energy. It was "very hot and exciting and I was blown away by his texts." She describes Alex as "usually very cool calm and reserved and I was so surprised to discover this other side of him, this other personality." She says when it comes to texting his, "dirty side comes through" and she finds this very attractive. They use mostly sexual emoticons and when Alex texts her to say he is "feeling horny" he couples it with an emoticon to illustrate this feeling. Alex will also often use text to say "sex was great" and they often use text messaging to turn each other on. Sarah is emphatic that this was a very important part of the early emotional development in their relationship. "We never say those things face to face," she says. "On text you get to be someone else, a bit of a dirty slut." Sarah adds, "there is a duality in our relationship – we can exist in these parallel dimensions – our everyday and our intimate one."

Alex and Sarah's sexual expression is channelled through text messaging and forms a vital part of their relationship. Both partners use the medium to portray a certain "character" and release inhibitions regarding sexual behaviour. Here it goes further than an emboldening effect but takes the form of a virtual personae. It helps that text messaging is done from a distance and happens during "moments of reflection." It allows both partners, outside of the busy everyday schedules to have a moment to reflect on their feelings and then channel it to the other. The fact that mobile phones are body objects[210] and thus also very intimate by nature helps with establishing this channel as "private" and eligible for intimacy.

Sarah admits to fabricating messages as part of sexual game play to keep the intimacy in their relationship alive. "I might say, 'The girls are in bed and I'm alone in the bedroom guess what I'm doing?' and I might not actually be doing that but he's not going to know. It keeps the mystery," she says. Sarah fabricates a scenario in her message that she thinks Alex might realise is for his benefit but the point of this is to "keep the mystery." Sarah says that, "We don't use texting for much else and I always want to play the game with him, so if he sends me a sexy text me and I'm busy with something I will respond in like, because it's leading up to something bigger."

[210] Amparo Lasén described mobile phones as a "technology of intimacy" due to its role as a communicator between loved ones and its close proximity to the body at all times. (Lasén, "Affective Technologies"4.)

Recently Alex's company issued him with a Blackberry. As a result the couple's "raunchy" texting has been transferred to Skype. Sarah says the Blackberry "hinders" Alex from sending private messages because it's his "work phone" and he's afraid of someone "getting into his phone and seeing the messages."

This provides a clear instance of how a user can feel watched – as described in Chapter 2. Here the work environment and the work tools prescribe a certain etiquette that limits the kind of expression that Alex normally has through his mobile phone. He tows the line on this etiquette, like in the Panopticon – behaving "as if" someone is watching him.

Sarah feels that texting gives her and Alex "another level of intimacy." She says that Alex gets more sentimental on text than in real life and other intimate thoughts come through when he's reflecting and they are apart. She says usually when they are together it is fraught with other distractions so, "the only time we find intimacy is in bed and on text." Alex does not save Sarah's text messages because he enjoys a "sense of order" and prefers an empty inbox. This might hint at his belief that text messages are ephemeral in the same way as Stuart and Gary (see later in this chapter) see them and thus only exist for a fleeting moment and to be enjoyed only once, on receipt.

Sarah says she rarely calls Alex because he is usually very busy and he will interpret a call from her as an emergency. She says she would rather text him to avoid interrupting his work. She says Alex does not use his phone a lot and barely texts anyone else except her and his family. In this instance text is seen as a colder, less urgent, less intrusive channel between people, providing a more polite way of reaching out without interrupting. Text has an air of safety about, it means users will not run the risk of interrupting someone's workflow or run the risk of the disappointment of going to voicemail.

Couple 2: Michelle and Darren Booth, London, England

Darren (33) is an IT manager and Michelle (33) is a Marketing Executive, currently on maternity leave. They have one son, Garth (7 months). They have been married for two years and dated for six years before that. Generally, Michelle and Darren are very practically minded, hard-working, ambitious and enjoy using technology. They seem to share a deep understanding of each other and have little obvious need for overt or public displays of affection. They both have a dry sense of humour and use this playfully in messaging.

Michelle describes her Blackberry (issued by her company) as something that makes her "tired." She "never" turns it off, often answering emails up to midnight on week nights (she works for an American company and the time-zone differences contribute to this). Michelle speaks about her career ambitions openly and is very eager to make a positive impression on her boss. Echoing the findings of other researchers[211] it seems that for Michelle, her employer, literally becomes embodied in the device and leads her to be more vigilant of emails and texts from work even though she is in her domestic setting and not the office. More so, her inner motivation to prove her worth to her team at work, shows how Michelle's attention to work is her primary priority and this is facilitated by her mobile. There is an active exchange between the phone and Michelle, meaning that the phone does not drive Michelle to work (in a techno-deterministic sense) but, she drives herself and the phone simply facilitates this. Moreover, Michelle internalises certain aspects of the mobile (urgency and relentless connectivity) and this affects her physically – leading to the statement about her phone making her "tired." There is an affect is transferred between Michelle and her mobile – it influences her mood and her physical state of being, which reverberates to influence her husband.

Michelle says that she used to check her Blackberry first thing in the morning that "pissed my husband off no end." Darren says Michelle needs to draw a line between work and personal life, adding he "hates it" when Michelle replies to emails on her Blackberry at night. Darren called Michelle's phone "evil", while Michelle maintained Darren doesn't understand her line of work. There is little doubt that Michelle's mobile behaviour at home has created marital tension.

These instances of work encroaching on personal or "home" spaces has been a source of tension for many couples through the decades, pre-dating the mobile phone. However, in the past, work and the office became synonymous due to the resources it offered. People stayed late at the office, working overtime to finish tasks. However, now work can be done remotely so the office can be set up in front of the television or even at the dinner table. Rituals associated with family bonding like watching television shows or sharing a meal are relegated in favour of mediated forms of communication.[212] The

[211] Nicola Green made this assertion that employers become embodied in employees" mobile devices, like their boss is literally in the same room. They thus feel impelled to be vigilant of work demands even though they have left the office. (Nicola Green, "Who's Watching Whom" 41).

[212] Ling *New Tech* 62.

phone creates a presence in this instance, one that says, "do not disturb" – allowing people to tele-cocoon while they are together – effectively "alone together."[213]

Michelle says that if she is out in a social setting with work friends she would take her Blackberry out "because everybody else will too" but that she feels it is rude to have a phone on the dinner table. Michelle and Darren both believe that the presence of a mobile phone hinders the creation of intimacy between two people. She says, "There is no need to be connected while you're with somebody." Michelle also feels obliged to apologize to people if she takes too long (a couple of days) to reply to a text message.

This is in stark contrast to her behaviour at home. Michelle says that mobile phones hinder intimacy between people and yet she is comfortable answering emails at night, at home, despite protests from her husband. It shows the "double standards" or differing performances that Michelle uses in different social settings and the etiquette appropriate for each. She is more relaxed and comfortable at home with her own mobile usage despite her husband's objections, as work is a priority and she will implore Darren to "understand". In an outside setting with a friend the social interaction is defined with different rules and Michelle believes that even the presence of a mobile on the table hinders intimacy.

Generally Michelle isn't comfortable talking on her mobile. She says it makes her feel self-conscious. Eight out of ten times she let's personal calls go to voice mail; "except if it's Darren." She says she feels like she's "being put on the spot" with voice calls fearing that people will judge her. Michelle says she thinks that text messages allow her to avoid awkward phone calls. Michelle prefers to "text than talk."[214] Michelle admits she "constructs" messages to her mother. She says: "I prefer texting because she can't hear my voice, and I can pretend to be fine after an argument but if she heard me over the phone she could sense the tension in my voice." Michelle circumnavigates awkward situations by using text messaging instead of calling, especially when she knows there is a high probability of conflict – for example with her mother. She literally constructs the impressions she gives off to her mother. In Goffman's terms she is avoiding giving her mother clues (like the tension in her voice)[215] in their social interaction and her mobile is her accomplice in this game. It gives Michelle a sense of relief that she doesn't have to confront her mother on issues. Michelle, thanks to the medium, thinks she represents

[213] Turkle *Alone Together* 447.

[214] Turkle "Alone Together".

[215] Erving Goffman, *The Presentation of Self in Everyday Life* (New York: Bantam Doubleday Dell Publishing Group, 1959) 2.

herself in a "happy and more neutral way" to her mom, using the phone as a conflict-avoidance tool.[216]

Lasén makes the point that users can choose different channels of mobile communication to convey messages: for example text can be seen as a "cooler" channel than voice. In this instance users won't be "betrayed" by the sentiment laced in the voice (a quiver or a stammer) and can spend time constructing a new message or respond to a received message. In extreme situations it lets users off the hook in awkward face-to-face moments like having to break up with a lover.[217]

Darren uses the phone to be "perpetually contactable" for work even though it's rare for this to happen. He is vigilant about answering his phone as he is the IT manager for his company and so feels obliged to be "in contact". Here, work hours cannot be clearly defined for either Darren or Michelle. They are both always with one ear to the ground listening for a call, text message or email to come through.

Michelle sometimes looks through Darren's messages when he leaves his phone lying around. Her rationale is that Darren sometimes opens her post. Darren also sometimes checks Michelle's phone to see who sends her messages – out of "sheer curiosity." The phone provides an informal way of vetting the transparency of the relationship. Michelle is very intrigued by this line of questioning and continues to probe Darren on it after the interview is over. She seems genuinely curious to know why he would look at her phone and is taken by surprise at this display of emotion. The mobile phone provides a way for couples to test the openness of their relationship and an accessible, always-open window into the other person's correspondence.[218]

When Darren sends Michelle a text message first thing in the morning while he is away on a business trip she rates the emotional quotient of the message highly. She says it is significant that Darren sent the message first thing in the morning because it means they were his first thoughts when he woke up. This provides a good example of how the receiver uses the chronemic dimension of the message to further imbue it with emotion and meaning.[219]

Darren says that Michelle "never hears her phone." He finds this "incredibly frustrating." Darren, by his own admission, is not someone who is prone to extremes of

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[216] Amparo Lasén calls these text a "cool" channel of communication where users mitigate the risk of revealing their true emotion by using text instead of warmer channels like voice (Lasén "Affective Technologies" 2).

[217] Lasén "Affective Technologies" 2.

[218] Amparo Lasén found during her research with couples in Madrid that access to their partner's phone formed part of the obligations and expectations of relationships (Lasén, "Mobile Culture"12).

[219] Ling *The Reconstruction* 124.

emotion, yet he is visibly irritated when he talks about this. This sentiment is repeated in other interviews (see Andrew and Lily) and helps illustrate that mobile phones become players in relationship dynamics. It shows that partners expect the other person to literally keep their phone on their body at all times. Ironically, Darren admits his own turn-around time on text messages is "very poor." When Michelle was out with her girlfriends and Darren texted her to find out if she was okay, she didn't respond till much later. Darren became anxious and cross. Michelle says,

> Emma didn't check hers and so I didn't check mine. It didn't feel appropriate to check my phone. If she'd done that to me I'd feel like she was distracted and bored. If it was an emergency Darren would have rung as text messages are not for emergencies.

In a McLuhan-like turn Darren sees "the medium as the message"[220] because he rarely sends text messages and he expects Michelle to view them as extra special. Darren, like many of the other male interviewees in this research, does not claim to require a response to their messages unless it is a direct question. Here Darren decides when the message is significant or not, expecting Michelle to interpret the same.

People tend to mimic each other's mobile habits during meetings. In all likelihood, when one of the people in the group or couple sanctions the use of a mobile phone during their meeting the others will follow suit. In this instance Michelle tows the line by not breaking the social etiquette established between herself and her friend. This comes at the expense of her husband who requires a response to his text. Paradoxically, Darren does not want Michelle to be tethered to her work mobile and yet in this example he gets angry when she does not hear it. Darren also has double standards about cell phone usage: the rule being that Michelle should prioritize mobile phone communication in her personal capacity but not in her work capacity. Darren feels reveals a greater expectation for Michelle to answer her mobile because she has it on her.

Couple 3: Roger du Toit and Stuart McKay, London, England

Stuart (32) is a London-based interactive designer who is married to Gary (38) a creative director based in Los Angeles. They have been together for 10 years and have a very comfortable, understanding and affectionate relationship. They have lived in separate cities for nearly half of the time they have been together, communicating via Skype calls and text messaging. They rarely use email but they can easily text each other

[220] Malcolm McLuhan, *Understanding Media: The Extensions of Man* (New York: Mentor, 1964): 8.

up to 27 times a day. Both have a healthy appreciation of the absurd and this makes their text messages uniquely entertaining.

Stuart has an iPhone for both work and personal use. Roger has two phones – a Blackberry for work and a jail-broken[221] iPhone for personal use. Stuart enjoys the informal and frequent text conversations that he and Roger have and it seems to form a sort of wallpaper conversation in the background of their everyday schedules. Stuart describes the informality of his text exchanges with Roger as part of their communication "rituals." In all their communication Stuart actively removes formality – such as clichés or even signing his name on email.

Stuart never uses emoticons in conversations with Roger. However, he uses emoticons with work colleagues to convey tone but more as a way to "blend in, because everyone else uses them." In this instance Stuart submits himself to the communication conventions (or peer pressure) of his work environment. This shows, again, how different performances (in Goffman's terms) play out in social interaction, where users will perform differently using different language and cues (in this case emoticons) depending on the context and person they are interacting with.

Roger describes emoticons as "a shallow intimacy – like first-base intimacy." He thinks people use them to avoid giving the impression that the message is rude or abrupt. He would never use them with Stuart, saying, "Stuart would be offended if I used emoticons." This comment goes to the heart of emoticon use amongst couples – illustrating how the texting practice between people is largely a function of how well they know each other and their establish norms of the communication ritual.

Stuart is not bothered if someone takes a call while they are busy having a face-to-face conversation. He is also hyper responsive to callers, "I will always answer my phone even if it's just to say, 'I can't talk now'." His says his friends really "hate" this but he prefers not to let a message go to voicemail, saying, "I have a fear of voicemail." He seems very concerned that someone may need to contact him urgently if something is "wrong" and he will obsess over this if the call goes to voicemail.

Stuart speaks disapprovingly about how Roger checks his phone "all the time" – even checking his email or surfing the Internet on his phone while he is with friends. Roger works with a creative team in America which means there is "always something in my inbox." He used to habitually check his phone first thing in the morning and last thing at night, calling it an "addiction." He does it again with his new work Blackberry.

[221] Jailbreaking is the process of removing the limitations imposed by Apple on devices running their operating system. ("What is Jailbreaking?" 13 Aug 2011. <http://www.appleiphoneschool.com/what-is-jailbreaking/>.

He puts this down to feeling like he's "missing out on something." Roger believes users deliberately enslave themselves to the "matrix" and this does not necessarily make users more productive or even happier by doing this. He believes he is certainly "less productive" as a result of his hyper responsiveness to new messages. He described a trip where he was permanently anxious and checking his phone, while he could have been enjoying the scenery.

As with Michelle Booth, Roger is "addicted" to his Blackberry that does not keep office hours. This is exacerbated by an American-English time zone difference. Stuart does not reprimand Roger in the same way Darren does to Michelle but he expresses his dissatisfaction at this behaviour. Stuart expressed disapproval when Roger checked his email in bed on his Blackberry. But generally they don't put too much emphasis on etiquette: "We have our own etiquette that is very different to other people's. Other people might think it's rude, but we love each other too much, we don't stand on ceremony."

Stuart is a hyperactive employee by his own admission, and his hyper-vigilance in mobile communication is a symptom of this. He has a very quick 10-minute response time to text messages, unless he's really busy. He also believes that every text deserves a response, unlike his husband who views text messages like broadcasts that do not necessarily require responses. Roger, like other interviewees, speaks about his mobile practices in very contradictory ways. He is evidently a very private and shy person and says he prefers to "text rather than talk."[222] He claims that text messaging is not "dialogue." However, Roger and Stuart enjoy marathon text messaging dialogue everyday, but Roger doesn't want to extend this to other people, he reserves this kind of behaviour for his husband only. He also reserves calling for very intimate conversations with his family and very close friends only – he considers voice the most intimate communication mobile channel. However, he claims he generally "avoids" making phone calls, as he prefers the "brevity" and "efficiency" of text messaging. He feels his phone allows him to avoid pointless small talk. He makes some channels like voice, exclusive, imbuing phones calls from him and to him with special significance.

Roger describes his messages from Stuart as "love letters." But he also sees them as ephemeral and transient. He's not sentimental about them. He sees the messages as a way to say, "You're in my thoughts." Neither Stuart nor Roger archive messages. Roger says when he gets a new phone he, "looks through the messages [on his old phone] one last time" and then lets them go. He comments that because he is now using a new company Blackberry his message flow with Stuart on his iPhone will have a big "blank"

[222] Turkle "Alone Together."

in it. What seems like a slightly dismissive and unsentimental view on text messaging by this couple is anything but. They have developed a unique "language code" to convey emotion.

There have been instances where autocorrect has changed words in Roger and Stuart's conversations which they have turned into playful, humorous pet names. "Moupe", a pet name, is an abbreviation of "enormoupe" which was an autocorrect error from the intended affectionate pet name "door mouse." In messages that Stuart submitted to this research it shows the word "moupe" cropping up in messages between them. Importantly, rather than becoming frustrated by the technology this couple have appropriated a new vocabulary forming their own unique pet names. They also reserve a special "lol cats" language[223] only for text messages between them. This is another unique form of text messaging that resonates with their sense of irony, humour and playfulness.[224]

Stuart describes his and Roger's text messages as functional, funny, playful, and affectionate. However, the morning of their interview they had an exchange that he described as "irritable." Roger had texted Stuart for some information and when he did not receive it soon after the text was sent he became agitated. Stuart says that he was really busy at work at that time and could not respond. In this instance Roger's expectations from Stuart were high. Rewound in time, this same scenario could have been played out with older communication technologies such as landlines or even Morse code, it is hardly unique to mobile phones. Non-responsiveness is an obvious cause for agitation in communication. However, mobile phones carry with them heightened expectancy for fast turn-around times. In the past where an unanswered landline would have been put down to the other person being absent from their desk, the mobile phone (in contrast) is almost always attached to the body of its owner, literally becoming a body object contributing to the expectancy of a far shorter response time. Consider that message-receipt and message-read options will also play a part in tracking the delivery of the message and thus further increase the expectancy for a reply.

Stuart and Roger both admit that sometimes they spontaneously text each other "I love you." Stuart describes this as the equivalent of "stroking the other person's hand so that they feel your presence." He says, in the middle of the day it's a way to say, "I'm

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[223] LOL is an abbreviation used on Internet messaging platforms for Laugh Out Loud. A "lolcat" is a humorous captioned image of a cat usually circulated on websites and emails. The caption is purposefully grammatically incorrect, and is known as "lolspeak" or "kitty pidgin". In lolcats language the question "Can I have a cheeseburger?" is translated to "I can has cheezburger?" "How are you?" is translated into "Howz u?" and "Hello Kitty" would be "Y halo thar kitteh." 12 Aug 2011 <http://speaklolcat.com/>.

[224] Please see Appendix 2 for examples of this.

thinking of you." In their communication it seems text messaging augments the existing communication that happens in face-to-face encounters and on Skype. It also points directly to the transmission of affect between the two, mediated by the mobile phone. These are confirmations of feelings and affectionate thoughts rather than direct messages requiring a response. The text transcends its own content and its mere presence creates a "feeling" – affect generated by one person and transmitted to another.

They use a "lol cats language" to communicate affection to each other and comfort one another. This is a unique exchange that only they understand in terms of tone and is only used on text messaging. They never use this language in face-to-face exchanges. Stuart comments that when he and Roger write text messages to other people it's in a different voice and that they may take time to construct the impression the recipient receives via the words and emoticons they might use. Stuart doesn't believe Roger ever "tries" to create a tone with him on text. Roger blushes profusely when his messages to Stuart are revealed in the interview. It's obvious Roger is embarrassed which gives credence to how he views these exchanges – as extremely intimate.

Couple 4: Danielle and Don Bear, London, England

Danielle (34) and Don (38) have been married for five years and together for 10. They have one child, Julie (17 months old). Danielle is a stay-at-home mom and Don is a finance director for a video-on-demand company. In face-to-face communication and on text Danielle and Don have a humorous and playful relationship.

Don's employer is based in the United States and he often receives emails at night due to the time zone difference. In case his colleagues need anything, he likes to keep his phone on at all times, responding to email as he receives them, often until he goes to sleep. Don says he felt "addicted" to checking his phone, had trouble sleeping and now actively restrains himself from checking his phone for new messages. Despite this Don still sleeps with his phone on at night next to the bed and keeps it on the dinner table, even though he acknowledges this is rude. Danielle used to comment on Don's behaviour but now she resigns herself to the fact that his phone is always on.

Don's comments about his mobile practices, much like Roger, are contradictory, showing ambivalence towards the technology. Don says the HTC predictive text keeps inserting the wrong word causing him to re-type the same message over and over again. He doesn't know how to turn predictive text off. He says, "If I had a QWERTY keyboard I

would do better with text, the touch screen of the HTC is a pain." He would certainly send longer text messages and they would be "warmer." "I find texting frustrating and I want it to happen faster than it does. That's why I prefer phoning." However, later Don claims that he makes very few calls on his mobile. He then reverts to, "I don't text, but will respond to a text message if I get one, but if that person then texts back again, I will call them." Yes, he says, "I find texting more personal than voice." When work people send Don texts he finds that "quite odd". He finds text "very intrusive".

This muddled description is symptomatic of Don's curious relationship with his phone. Usage and channel choice is uniquely dependent on his mood and context. He wants to view the phone as "for emergencies only" but he is, by his own admission, very responsive to all messages. He wants to categorize his phone as "useful and functional" and not "social" but in a few instances he also uses it to reassure his wife via text,[225]to read the news and see sports scores. Throughout the interview Don seemed to be creating the impression that he was "not bothered" by the phone but then later he describes it as "really important." Don's relates his aversions directly to the limitations of the phone, describing his communication in negative emotional terms like "pain" and "frustrating."

Danielle, unlike Don, far prefers text messaging to voice, often enjoying long text conversations with her female friends. She "doesn't have time for conversations that require her full attention. Text is more convenient way to check in with people." Danielle sends her mother and friends between eight and 10 text messages a week. If she does want to call a friend she will text to find out if it is a good time and then call. Danielle does not use emoticons in text messaging saying they are for "jokey" conversations and that they are superficial and would prefer to use words to express emotions. She calls herself "emotionally literate", a "language purist" and averse to "text speak." Danielle thinks it is significant that she signs off messages with an 'x'. Don thinks the opposite because Danni always signs off messages with an 'x' but he still likes it.

Danielle is very sentimental about Don's messages, saving all messages from him, as far back as when they were dating. She kept these messages on an old Nokia handset and then lent this to her sister who erased them all. Danielle was upset and disappointed about this. She sees his messages as "love letters" alluding again to the sentimental value that text messages have for her and the affective nature of the technology. When Danielle and Don were asked to rate each other's messages for emotional intensity the sender of the message (either Danielle or Don) rated the

[225] Don to Danielle: "Hey Beautiful girl, don't worry about things, its all fine you've just had a tough and long day. Money's not a problem, Kelly's not a problem, nothing is a problem. Have fun tonight, we'll chat later about things, C you , miss you, love you."

emotional intensity higher than the receiver. It seemed that the sender would rate it higher knowing the full intent and expression of that message.

Couple 5: Mark Botchnik and Claire Gamble, Amsterdam, The Netherlands

Mark(30) is a Polish computer programmer and his girlfriend Claire (37) is an Irish-born graphic designer currently studying. Mark and Claire met online and had conversations on instant messaging platforms for the first few years before they met in real life. They have been dating for little over a year and recently became engaged. Claire and Mark do not have a large friendship circle in Amsterdam so the phone is not key to their socialising. In fact, Mark so rarely uses his phone that he often doesn't even know where he left it. When he goes out for dinner he avoids putting his phone on the table, mostly because he is not expecting anyone to call. However, he also fears the effects of the phone's electromagnetic waves in his pocket and this makes him uneasy.[226]

Mark never uses emoticons or abbreviations. He thinks they are silly and "pollute the language". He doesn't need to use them unless he wants to show that something is a joke. He says, "I find emoticons and abbreviations difficult to read." Even though he does not think emoticons are necessary he sometimes uses a smile or a wink face in messages to Claire. He says, "We usually end our conversations with an x, (quantity depends on the current mood)." He says it represents, "I'm thinking of you" and it does not have to be related to the content. He admits later he may use it in a compensatory way: to "soften" the message. Mark is equally sentimental about Claire's messages, archiving them regularly.

Claire is one of nine children. Perhaps as a side effect of a large family she purposefully focuses on people in face-to-face interactions. She sees mobile phones as an "interruption" and "rude." She references her upbringing saying, "It's polite to give people your time at dinner." She says she would not have the phone on the table unless she was waiting for someone to arrive at a meeting place. Claire loves texting saying, "It's a recording of your life" and her phone is a "texting machine." She's critical of the iPhone's messaging interface design. Accidently she has deleted entire conversations with Mark on the iPhone. She says the iPhone doesn't ask, "are you sure you want to delete?" "It was the whole history of our relationship. It is a real gripe with me." Claire, like Danielle, sees her relationship history contained in the phone making it a

[226] Mark previously studied at a technical college in Poland where research was being done into the effects of electromagnetic waves from mobile phones and is very vigilant about keeping his phone away from his body as part of his mobile practice.

particularly sentimental and emotional object. She described feeling "gutted" when she deleted another conversation history on her iPhone with her ex-husband.

Mark and Claire claim they mostly use text for synchronizing schedules although this would not explain Claire's hyper attachment to her messages from Mark. As the interview progressed they revealed much more information about their texting habits. For example, neither respondent uses emoticons; they prefer to construct their own "language" to express themselves, not something "pre-programmed". So Claire and Mark construct words from ASCII[227] characters to convey emotion. She says they like to be playful to overcome "limitations of the technology." Similarly, Claire says, "Once the phone autocorrected "xx" to "fx" and we left it like that. We sometimes text "fx" to each other. "I think it stands for French kiss."

Distance impacts frequency and format of their communication. When they are apart they text as much as 10 messages every day. In one SMS exchange Mark receives a message from Claire while she is abroad: "My flight gets in at 4.20pm but I will need to get the train & tram home. Flight EI0608 if you want to check the Internet. X love you." Mark rates this highly as a very loving message due to the perceived context from which it was written. He imbues the message with extra emotion because he assumes that Claire is boarding her flight and that she took the time to message him and this is significant and meaningful to him. In Claire's interview it emerges that she was not boarding a flight when she sent this message but was at home texting Mark from Skype. This example shows how the receiver rates the senders message based on the inner narrative he has about her context and intention. He responds with a loving message: "I love you too. Have a safe journey. Soon I'll give you a hundred of kisses and feed you with Polish chocolate, haha. Xxxxxxxx"

Couple 6: Katy Wong and Gunter Herzig, Amsterdam, The Netherlands

Katy (24) and Gunter (25) have been dating for three years. Katy is an Australian currently studying new media and Gunter is German and lives in Cologne where he studies law at the University of Cologne. Both Katy and Gunter have 2006-model Sony Ericsson W810i handsets. They are both musicians and this phone appealed to them separately (and independently) mostly because they could play music from it. Neither

[227] ASCII stands for the American Standard Code for Information Interchange. It is a character-encoding scheme based on the ordering of the English alphabet. Users have adopted ASCII characters to design graphic art. Examples of Claire and Mark's "ASCII" messages: "Morning honey... some *;*;*; flowers for you! xx". ''''''' raining again!

Katy or Gunter use any data service, their handsets are used for texting, voice and sometimes taking photos. They communicate using a mix of German, Dutch and English in their text messages. As they live in different cities they only see each other every two weeks.

When describing his relationship with technology Gunter says, "I don't have an erotic relationship with devices and/or gadgets." He describes himself as an "offline" student: "I never study with my computer, only pen and paper." Gunter says he feels "neutral" towards his phone but even on the "vibrate" mode he can hear it ringing from another room. He ironically claims he is extremely "tuned" to the vibration of his phone and when he gets a message from Katy its like a "special occasion." How can Gunter be sensitive to the subtlest frequency of a device he feels so neutral about?

Katy is more overtly tethered to technology than Gunter. She is a new media student and has her laptop on most of the time when she studies. She sometimes reaches out to other musicians for gig opportunities on Twitter and Myspace. But when she goes out and leaves her phone behind she feels like she is taking a "mini holiday from technology." Katy claims her mobile does not play a big role in her communication practice but she admits that she always answers her phone and the phone represents "urgency" so she also expects people to pick up immediately when she calls.

Gunter's memory card is full, but instead of buying a new one he deletes any messages that are not from Katy. He describes this database of messages "like a diary." Unlike most other male respondents in this sample, Gunter prioritises and saves messages from Katy and is obviously very sentimental about them. This becomes like a living digital relationship diary, further highlighting the emotional value Gunter attributes to his "neutral" mobile phone. [228]

Gunter reviews the place and time of Katy's messages before rating the emotional intensity or authenticity of them. Katy sends this message to him one night at 10.30pm:"Haha I am at club 8 for the karaoke ☺ thinking of you x x x." Gunter dismisses it for any particular emotional significance because it is sent late at night and he assumes she is "a little bit tipsy." This gives a clear example of how the chronemic dimension of the message plays a part in constructing the impression the user receives. This forms part of the non-verbal "extras" that augment text messaging and help in forming an impression for users.

Katy finds it frustrating to input words in texts because her dictionaries don't have Dutch, German and Swedish loaded. Katy is making her own dictionary as she goes

[228] Bruno Latour quoted in Lasén "Affective Technologies" 5.

by inputting all words. She finds this really frustrating and makes her messages "less spontaneous." Katy takes time to correct punctuation in her messages pointing to the importance of language in the transference of affect and the role the phone plays in this.

Gunter and Katy claim they only text when "there's no computer" and when they need to coordinate or organize something. But, later in the interview they reveal examples of emotional "broadcasts." The texts show how they enjoy sharing a moment of excitement like when Gunter was watching the soccer on Leidseplein he texted Katy to say his team was in the lead. Katy says she enjoys Gunter' random broadcasts and this clearly augments their existing channels for affectionate communication.

Gunter and Katy, unlike other couples in this research use emoticons often in their text messaging (the positive emoticons - laughing, regular smiley and really big smiley - are most popular). This is in stark contrast to the other respondents in this research who do not use emoticons at all, often out of principle. This could be as a symptom of the difference in ages between the other respondents (mostly in their mid 30s while Katy and Gunter are in their twenties). Both Gunter and Katy take time to "craft" text messages to other people, thereby creating a certain impression. This is contrasted with exchanges between each other, characterised by spontaneity.

Couple 7: Lily and Andrew Smith, Amsterdam, The Netherlands.

Andrew (38) a marketer, and his wife Lily (34) a freelance photographer, are English expatriates. They have been together for four years and had a long-distance relationship via text messaging and Skype for many months before they decided to get married and Lily moved to Amsterdam. Currently Lily works from home and has a small circle of friends. While Lily comes across as a very easy-going person generally, Andrew has a more urgent disposition.

Generally Lily says she does not enjoy text messaging that much. She is often not near her phone during the day or leaves it in another room of the house. She prefers to make brief calls and send very short text messages like "Sure" or "See you then" or "Gotcha." Lily describes herself as a "cold texter." Often she does not hear Andrew's messages. She sometimes tries to end long text messaging sessions with Andrew with kisses (xxx). Andrew thinks takes this as encouragement to continue the conversation while Lily is actually trying to end it. While Andrew often seeks a release from the routine of his job by texting Lily during the day she finds it intrusive and bothersome. Lily eventually asked Andrew to send her less text messages.

Andrew gets irritated when Lily doesn't respond to his messages immediately. He will often type the word "Oi!" numerous times to get a response from her. He jokes that Lily "has nothing to do" while she is at home so there is no reason not to answer it. It is difficult to draw the line between Andrew's humour and when he is being serious. It appears he has high expectations from Lily in mobile exchanges and tension rises when these are not met. In this way a less-than-subtle subjectification emerges.

When Andrew noticed that Lily signs her text messages to her friends with one kiss (x) he commented to her that he would like to receive more "kisses" on his text messages from her. He tries to create a joke out of this scenario but Lily maintains he is being serious. Andrew demands to be shown priority through Lily's text messaging.

When Andrew goes to Glastonbury and texts Lily from there: "Hehe, you are very missed. You crazy beautiful kind of brd. Mucho lovo. xxxx", she rates the message as very loving even though she adds a disclaimer to her answer by saying she knows he is probably not sober. In this way, Lily has an inner narrative about what is going on at Glastonbury built on past experiences and then interprets the message on this basis. Mobile communication is fraught with assumptions but when couples know each other really well these interpretations are often an accurate assessment. However, in one instance Andrew texts Lily "Hope you're wearing your good knickers." Andrew says this message was a joke whereas Lily finds this genuinely flirtatious and rates it as a very loving message. She is surprised at his response – revealing that margins for misinterpretations still exist.

Couple 8: Michelle and Elijah Graham, Amsterdam, The Netherlands

Elijah (37) is an independent filmmaker and his wife Michelle (31) is completing her doctorate. They have been married for 18 months but have known each other more than six years. They met while they were both in other relationships and their first illicit flirtations were via text messaging. At the start of the interview Elijah and Michelle spent a fair bit of time reminiscing about their first phones, from the model (clamshells) and make (Nokia) to colour and place they bought them, showing their affection for the phone. Yet, as the interview continued their views on mobile communication and mobile technology became more critical and negative.

Michelle admits to completely disentangling herself from mobile technology in the last few years after a very active bout of work in London where she claims she was "addicted" to her Blackberry. Elijah recalls how he found her in middle of the night holed up in a hotel bathroom contributing to an online chat forum via her Blackberry. He

remarks, “This thing [mobile phone] is great but it’s also terrible.” Michelle said she was addicted to receiving email on her Blackberry and “overdid it” even with “mindless” mobile games like Brick Brick. She took a step back from this behaviour recently as a result of moving away from London and leading a quieter life in Amsterdam. She comments, “My phone was recently stolen and there is hardly any desire in me to replace it. I’ve become bad at charging my phone too.” Michelle speaks about her phone like it is a living creature and by purposefully not charging it she refuses to revive it.

Elijah shares Michelle’s propensity for addiction saying, “I’m addicted to the Internet and I can easily go on for hours that’s why I don’t want it on my phone I don’t trust myself on the phone.” In setting up the interview with Elijah was obviously agitated when I called him on his phone. He seems to have a very unhappy relationship with the device. He says that when his phone battery dies he feels a sense of “relief” and remarks that, “I can’t stand the thing but one needs it unfortunately.” He jokes that he and Michelle are the “founding fathers of the new luddite revolution.” They actively seek a “simpler way of being” that does not involve mobile communication.

Michelle describes text messaging as “a safe distance communication” and as a way to avoid “engaging in depth.” However, she says she “likes text messages with a bit of flair or poetry in them” and sees them as emotional broadcasts – to share a special moment. When Michelle recently lost her phone, she was upset over the loss of her messages and photos, which she rarely purges. She feels “traces of time” and “fascinating forms of communication” were lost. She comments that her mother also archives her messages as a “memento.” Michelle directly associates feelings and sentiment towards the phone even though she is trying not to rely on it heavily.

Elijah associates negative feelings with his phone, unlike other people who may feel comforted and buoyed by the presence of their phone and excitement when it rings. Elijah feels relief when his phone is not on. He echoes the sentiments of some of the busier people in this research who produce products in a team and are contactable at all times. Elijah says he is not a technophobe except when it comes to his phone. He enjoys talking to people and experiencing serendipity and feels mobile phones can “take away all chance.”

Once Elijah tried to call Michelle from a plane before it took off and couldn’t get through. Michelle sent him a text that he also could not reply to and felt more anxious. Elijah says that because texts are written and they have time stamps they become part of a record or testament to your relationship and – that makes them “more powerful than a call.” Both of them, despite their aversion to the technology admit to agonizing

over how to archive messages and often send up to 10 messages a day while they're apart.

Elijah uses "xx" in messages to soften them, as a compensatory measure for the brevity or terseness of the content. "It's a way to say, "I'm not angry" because email texts are so easily misconstrued." Elijah has even programmed "X e" into his predictive text dictionary to sign off messages. It's his version of "yours sincerely" or "kind regards." He feels the 'x' "narrows the gap between intention and interpretation" in messages by taking the edge off.

Michelle and Elijah use "silly names and codes that other people would read as gibberish." This affectionate banter is born out of a combination of predictive text errors and their use of "lol cats" language in text messaging. In the same way as Stuart and Roger, they use "lol cats language" ironically – for example like "kitteh" instead of "kitty", bad spellings and lots of exclamation marks.

When predictive text changed Elijah's surname (Graham) to "Flangambler" he and Michelle adopted it as a petname. Another time Elijah typed a message to Michelle, intending to use the word "wifey" which was turned into "weezy" by predictive text. He left it so she became known as the "weezy wifey" between them. Michelle says there have been many foolish names flying around and Elijah has even pre-programmed pet names into his predictive text dictionary like "Labradoodle" and "schnoodels." Elijah says these pet names serve the same affectionate function as the "X" in messages. They also often make reference to lines from TV shows they both like, as "insider jokes" and share football scores – making up part of their affectionate exchange.

Couple 9: Joy Kruger and Michael Van Beek, London, England

Joy (34) is a magazine editor and Michael (35) is a book editor. They have been dating for three and a half years and live together in a house on London's Southbank, walking distance from their offices. They have very set routines that usually involve activities in a one-kilometre radius of their home. Initially Joy expressed hesitation at the idea of this interview because she felt that Michael would not want to "talk about his feelings" and yet in the interview both expressed very strong views on the technology and its role in mediating emotion.

The couple mirror each other's beliefs about technology as being "functional" and had the ability to downgrade many aspects of people's social behaviour. They speak disapprovingly of many aspects of mobile-mediated communication and make the point that they are very indifferent towards mobile phones. Michael is averse to talking about

any "emotional" issues and Joy intimates that his signs of affection are usually shrouded in dark, ironic humour that she appreciates. Even though Michael would prefer to present an impression of himself as completely unenthused by any aspect of mobile technology he acknowledges its usefulness and randomly refers to social aspects of the phone (like sharing photos and checking sports scores).

Despite Michael's scepticism towards it, he does use mobile technology to send non-essential texts. When he and Joy were apart (she was in South Africa for a visit) Michael sent her a picture of the Thames every day as he was walking over it. It seems he reserves affordances of the technology only for things he deems significant and is wary not to let the technology "enslave" him.

Michael receives and makes phonecalls and occasionally sends texts on a discontinued Nokia 6300. He makes on average one phone call a week on his phone and it's almost always to Joy. He often leaves his phone at home. He is very annoyed by the number of people he sees completely absorbed by their mobiles walking, head bowed, on London Bridge or outside Waterloo station as they talk on their phone, text or listen to music, they "almost get run over!" Michael feels that people should keep their eyes open ("they are too insular, they don't even look up") and ask others for directions rather than relying on Google Maps on their phone. Having said this Michael admits, "It's fun to overhear other people's mobile conversations."

Joy has a six-year-old Nokia E65 that she is not considering upgrading. She often racks up free minutes on her pay-as-you-go package and does not use them. Joy doesn't give her mobile number out to her work colleagues. She does not think people should call her outside of work hours. Joy says she's falling behind with technology and often leaves her phone at home. She mostly uses email to contact friends. Joy used to work long hours for a very busy publishing company in Cape Town and was extremely tethered to her phone and email. It seems, in the same way as Michelle (Graham) she seems to have suffered a kind of "technology burn out." She admitted that now her phone represents work for her and all the associated anxiety this brings with it. She mentions that her current office life ends at six pm and she enjoys not working any overtime. Arguably her decision not to upgrade has a lot to do with her aversion to being available to others and falling back into a permanent state of connectivity in the network society. She often just ignores text messages – "they are not that important." This is in stark contrast to her previous behaviour where she was very tethered to her phone and very responsive to messages.

Joy mirrors Michael's remarks about people crossing London Bridge with their heads bowed down looking at their phones instead of looking at, "the magnificent river

below." She feels people don't acknowledge each other any more. Throughout the interview Joy makes a concerted effort to give off the impression that she shares the same view as Michael about technology as a necessary evil. In previous electronically mediated exchanges with Joy she has been hyper responsive and seemingly keeps these channels open for dialogue. However, perhaps as a result of technology "burn out" and her desire to mirror her partner's view, Joy is actively seeking to give off a certain technology-independent impression of herself.

Michael has a firm belief that technology dampens people's cognitive abilities. He feels like people don't have a choice about adopting a digital way of life. He says, "People look at you funny" if you do not have a phone and that's not a good direction". He feels we have become enslaved to technology [mobile]. He feels some technology improves his life but there is a point at which people start "working for the technology." He recounts his frustration at installing software or how computers randomly stop working. He talks about wasting time and energy on technology. Despite this apprehension Joy and Michael share an appreciation for dark humour and she will occasionally send him a text message about fat people that she finds funny. They share these "broadcasts" as part of their affectionate exchanges.

Michael sees emoticons as a sign of failing communication. He says if had to explain a joke to a friend on text (with emoticons) then they do not know him at all. He says, "It's a lazy way of brightening things up." Joy says, "I would throw myself off the bridge if I ever used 'lol' in a text message." She finds emoticons "so fake". Generally she finds new forms of communication very depressing and digital expressions "careless" that have little "intent".

Chapter 5: Conclusion

"Technology is reshaping the landscape of our emotional lives."[229] The interviews in this thesis aimed to charter this landscape by testing the depth of different couples' affective relationships with mobile phones. The results revealed that couples see mobile phones not just as objects (or computers) that mediate emotions and store sentimental artefacts, but also as actors that have presence. The bonds they help form, maintain or break, nourish this presence.[230] Mobiles give rise to emotion in people, from anxiety at the relentless connectivity they offer or the anxiety of having the demands of contacts met, to the feeling of happiness or even sexual desire. Mobiles give physical form to absent contacts – family, bosses and lovers."[231] This impacts the dynamics of our relationships and the spaces they occupy. Mobiles are affective technologies because of the way they make us feel. This does not only pertain to the transfer of affects like joy, happiness or comfort, it encompasses the harsher affects too like anxiety, fear, irritation and anger. The genie is out of the bottle; mobile phones are firmly part of the fabric of our everyday routines and relationships, facilitating the formation of affective social ties.[232] We rarely reflect on these relationships, they seem to exist firmly alongside our family, friendship and work connections. The creation and maintenance of our social networks have come to rely on them. Mobile phones, culture and behaviour have become second nature to us.

As people co-evolve with technology we experience and appreciate how it possesses energy and even urges.[233] Descriptions and discussions of mobiles are much the same as those of people, as "alive" or "dead", "evil" or "we just had a fight" or "let me kill that" which confirms how we view phones – as things that possess an energy or even life force. At home, work phones take on the presence of a mistress, an enabler to addiction, something that spouses disapprove of. A central argument of this thesis is that mobiles can activate affect. By definition affect is a transition, and in the case of mobiles, they transfer energy to spaces and people, impacting the way we relate,

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[229] Turkle *Alone Together* 574.

[230] Lasén "Understanding Mobile Phone Users" 132.

[231] Green in Brown 41

[232] Gibbs 202.

[233] Kelly "How Technology Evolves."

communicate, socialise and feel about each other. Our mobile phones' ringtones, flashing lights or message-arrival sounds function at an affective level spreading affect contagiously between people.[234]

Mobiles, by their very nature are imbued with the aura of our relationships and the associated emotional value they contain. They make some people "tired" and can cause a physical overload of sensation, brought on by the demands the phone represents. Spaces can be filled with the presence of a mobile phone too, as conversations, arguments and joyful exchanges are released into public space for everyone to overhear. Sometimes these public conversations happen as a performance, to publicise how exciting our life is or how in demand we are.[235] Often this connection to our phones in public places comes at the expense of our connection to the surrounding environment and people.

Simplistic views on mobile-mediated communication see it as a drastic simplification of conversation with restricted vocabulary, grammatical and syntactical structures often resulting in rigid clichés.[236] The opposite emerged in the interview material. In conveying emotion to their partners, interviewees used techniques to shape and mould language to suit their emotional expression. Language is a central component in the transmission of affect and here mobile language is significant. Interviewees purposefully reinvented parts of it into signs of affection by playfully transforming autocorrect *faux pas* into signs of affection. Similarly, ASCII-based and "LOL cats" languages were used to show affection, challenging the stereotypical view that the affective bandwidth of mobile phones is narrow. Although typically viewed as necessary emotional clarifiers, emoticons featured rarely in the text conversations of interviewees. They were described pejoratively as "polluting the language" or "first-base intimacy" or "a sign of failure in the communication process." Overall, emoticons are not viewed as part of authentic emotional mobile exchanges amongst interviewees, especially eschewed perhaps because of the maturity of the relationships and user experience of the subjects.

As accountants of our emotional exchanges, mobiles are "relationship diaries" becoming objects of affection in the process. Interviewees saved text messages and pictures in the same way people save cards, diaries and mementoes attaching significance to the device. Accidentally deleted text conversations caused emotional

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[234] Gibbs 192.

[235] Chantal De Gournay quoted in Lasén "Understanding Mobile Phone Users and Usage"125.

[236] Longo 27.

strain as texts are equated with "ephemeral love letters." Simply put, mobiles "receive the emotional value of the exchanges and relationships carried out and sustained through them."[237]

Many respondents spoke of emotional "broadcasting" to share and extend their options for emotional expression. Emotional broadcasting is one of the highlights of mobile-mediated communication – it gives texture to our messages, it allows us to share the things we are experiencing – "hey, look what I just saw!" Feel what I'm feeling!" The intimacy of these broadcasts comes in frequent increments that never threaten to overpower the receiver. Often these messages perform a one-way "broadcast" to their partners, not necessarily requiring a response. In this way affect is powerfully transmitted.

In Goffman's terms, the mobile realm allows people to play out different "performances" via text messaging, as they do in real life. Peer pressure may stimulate the use of emoticons in work exchanges but this does not necessarily extend to personal ones. Interviewees used mobiles as conflict-avoidance tools – by constructing convivial impressions, feigning affection or even sexual desire to avoid hurting their partner's feelings.[238]

Interviewees operated in daily communication "flows" – as their daily rituals occupied a hybrid space composed of wireless communication, physical interaction and online communication and interaction.[239] However, in addition a narrative exists alongside or intertwined in this "flow." Judging by the differences in ratings of emotional content by interviewees it was evident that they perceived the emotional intensity of messages differently. Using assumptions about their partners' behaviours, interviewees created and interpreted meaning in text messages based on the narrative being woven.

Mobile usage contains several paradoxes, contradictions in behaviour and ambivalence – and sometimes this manifests in double standards amongst users making it a complex emotional terrain to understand. Where one husband expected his wife to ignore work messages after hours he also expected her to be hyper-responsive whenever he called at night. Interviewees reserve the pleasure of being free of their mobile phones only for themselves while simultaneously having high expectations of other mobile users and their partners, often making them subjects to these demands.

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[237] Lasén "Understanding Mobile Phone Users and Usage" 202.

[238] Goffman 2.

[239] Castells 249.

Anxiety is an oft-felt symptom of the relentless connectivity we experience with mobile usage, sometimes this is born out of the feeling that people are "missing out" when they see a missed call or the flashing light of a new email. In a positive sense they also create a sense of "refuge" – away from the immediate demands of children and family life.

All respondents spoke about their mobiles in hyper-emotional terms using charged language and animate descriptions – one interviewee described his hatred towards his wife's "evil" Blackberry. Another husband found his wife in the bathroom at two o'clock in the morning contributing to an online forum via her Blackberry. His description of waking up and searching the hotel for her was reminiscent of a husband about to discover his wife cheating on him. Both examples illustrate not only how tethered interviewees' are to their phones but also the role the phone plays in relationship dynamics. It becomes the offending object or the enabler to addictive behaviour.[240]

Our access to the mobile network comes at the expense of our privacy. This inspires fear about surveillance as Alex and Sarah's sexting[241] example showed. People's channels for emotional expression are not always free and open, often they have to tow the line of company policy with regards to their communication tools, elucidating the power relations inherent in this relationship.

Although we use mobile technology to mediate our relationships it still suffers from affect impairment. Adapting to the tenants of affective computing, mobiles need to recognise and express affect to better mediate affect and increase the range of options for emotional expression, making the experience richer.[242] Picture the future sexy Samsung 410i, a phone that understands flirting and flirts back! Or the chipper iPhone 15 – the phone that is never in a bad mood! The future of Nokia may lie in the handset's ability to perform real-time lie detection for owners during conversations. Or perhaps a sentiment analysis application alerting people ahead of time to the angry or happy tone of text messages will save Motorola in the future. The next evolutionary step for social

[240] Enabler is a term used mostly in the context of addiction to describe someone who protects an addict from the consequences of his/her addiction and often regulates the behaviour of the addict. (Stephanie L. Brooke, *The Use of the Creative Therapies with Chemical Dependency Issues* (Springfield: Charles C. Thomas Publishers, 2009): 108.)

[241] Sexting is the act of sending sexually explicit messages or photographs, primarily between mobile phones. The term was first popularized around 2005, and is a combination of the words "sex" and "texting", where the latter is meant in the wide sense of sending a text possibly with images (Pew Research Center, "Teens and Sexting" 15 Dec 2009, 12 Aug 2011 <http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx>.

[242] Lasén "Understanding Mobile Phone Users and Usage" 132.

media could rely on the ability of our mobile phones to gauge bodily responses to emotional exchanges and feed that information back to users. Looking ahead, our face-to-face interactions will be augmented with data to reveal how others feel about us. Elijah's fear that serendipity is a slowly fading concept is real, and in the future, bumping into someone will perhaps only be as a result of our appetite for social networking, location-based technology and a quickened heart beat. While many respondents to the online survey for this thesis openly criticized these futurist scenarios, this revealed more about our reticence at letting go of the control we think we maintain over these machines. This is undeniably part of our future mobile nature.

Bibliography

"Adults and Cell Phones: Ownership and Use." Oct 2010, 9 Jun 2011. <http://www.pewinternet.org/Reports/2010/Cell-Phones-and-American-Adults/Part-1-Adults-and-cell-phones-Ownership-and-use/Uses-of-the-phone.aspx>.

Boehner, K. et al. "How Emotion is Made and Measured." *International Journal of Human-Computer Studies* Vol 65 Issue 4 (2007): 275 -291.

Baron, N. *Always On.* Oxford: Oxford University Press, 2008.

Baron, N. "The Myth of Impoverished Signal: Dispelling the Spoken Language Fallacy for Emoticons in Online Communication." *Electronic Emotion.* eds. Vincent, J, Fortunati, Leopoldina. (2009): 107-135.

Bourdieu, P. *Language & Symbolic Power*. Cambridge Massachusetts: Harvard University Press, 1982.

boyd, d. *Faceted Id/Entity: Managing Representation in a Digital World.* MS. Massachusetts Institute of Technology, September 2002.

Brennan, T. *The Transmission of Affect*. London: Cornell University Press, 2004.

Brooke, S.L. *The Use of the Creative Therapies with Chemical Dependency Issues*. Springfield: Charles C. Thomas Publishers, 2009.

Brown, B. Green, N, Harper, R. *Wireless World*. London: Springer, 2001.

Byron, K. "Carrying Too Heavy A Load? The Communication and Miscommunication of Emotion by Email." *Academy of Management Review.* Vol. 33. No 2(2008): 309 – 327.

Castells, M, et al. *Mobile Communication and Society A Global Perspective.* Cambridge, Massachusetts: The MIT Press, 2007.

"Captain Kirk's Revenge." *Economist* Vol. 381 Issue 8509 (2006): 4-7.

Crystal, D. *Txtng*. Oxford: Oxford University Press, 2008.

Damasio, A.R. *Descartes' Error: Emotion, Reason and the Human Brain*. New York: Avon Books, 1994.

Darwin, C. *The Expression of the Emotions in Man and Animals*. London: Julian Friedman Publishers, 1979.

Deleuze,G. "Postscript on the Societies of Control." *October* Vol. 59 (1992): 3-7.

Dell, P. F., O'Neil, J. A. Preface. *Dissociation and The Dissociative Disorders: DSM-V and Beyond*. New York: Routledge, 2009.

Demos,V. E. *Exploring Affect: The Selected Writings of Silvan S. Tomkins*. Cambridge: Cambridge University Press, 1995.

"Dial M For Money." 28 Jun 2007. 12 May 2011<http://www.economist.com/node/9414419?story_id=9414419>.

Ekman, P, Rosenberg, E.L. *What the Face Reveals: Basic and Applied Studies of Spontaneous Expression Using the Facial Action Coding System (FACS)*. Oxford: Oxford University Press, 1997.

Engelbart, D.C. "Augmenting Human Intellect." *The New Media Reader*. eds. Wardrip-Fruin, N and Montfort, N. (2003): 95-108.

"Family Ties."10 April 2008, 12 December 2010 <http://www.economist.com/node/10950449?story_id=10950449>.

"Father of the Cellphone." 4 Jun 2009, 18 May 2011<http://www.economist.com/node/13725793?story_id=13725793>.

Fortunati, L, Katz, J, Riccini, R. *Mediating The Human Body*. New Jersey/London: Lawrence Erlbaum Publishers, 2003. Print.

Foucault, M. “The Subject and Power” Afterword in *Michel Foucault: Beyond Structuralism and Hermeneutics.* eds. Dreyfus, H, Rabinow, P. (1983): 208-226.

Foucault, M. *Discipline & Punish: The Birth of the Prison*. New York: Random House, 1977.

Gibbs, A. “After Affect: Sympathy, Synchrony, and Mimetic Communication.” *The Affect Theory Reader*. eds. Gregg, M, Seigworth, G. (2010): 186-205.

Gilbert, N. *Researching Social Life*. London: Sage, 2008.

Gladwell, M. “Small Change. Why The Revolution Will Not Be Tweeted.” 4 Oct 2010, 12 June 2011. <http://www.newyorker.com/reporting/2010/10/04/101004fa_fact_gladwell#ixzz1P4GbKaiq>.

Goffman, E. *The Presentation of Self in Everyday Life.* New York: Bantam Doubleday Dell Publishing Group, 1959.

Goggin, G. *Cell Phone Culture*. New York: Routledge, 2006.

Goggin,G. *Global Mobile Media*. New York: Routledge, 2011.

Skidelsky, W. “iPhone Sleep Cycle: My Nights with a Strange Bedfellow.” 24 Jan 2010, 29 Jun 2011. <http://www.guardian.co.uk/culture/2010/jan/24/iphone-app-sleep-cycle-skidelsky>.

Goodchild, S. “Crackberry Addicts.” 6 Oct 2006, 15 May 2011. <http://www.independent.co.uk/news/science/crackberry-addicts-why-the-workers-who-cant-switch-off-are-suing-their-employers-418309.html>.

Gregg, M, “An Inventory of Shimmers.” *The Affect Theory Reader*. eds. Gregg, M, Seigworth, G. (2010): 1-25.

Gregg, M. “White Collar Intimacy.” forthcoming.

Gunkel, D, Hawhee, D. “Virtual Alterity and the Reformatting of Ethics.” *Journal of Mass Media Ethics*, Vol. 18 (2003): 173-193.

Hayles, N,K. 'Computing the Human.' *Theory Culture Society* Vol. 22 (2005): 131-151.

Hayles, N,K. *How We Became Post Human*. Chicago: University of Chicago Press, 1999.

Hemmert, F. "How Can We Make Mobile Communication More Emotional." 15 Nov 2010, 27 Feb 2011. <http://www.youtube.com/watch?v=-3NKVnRN7kY>.

Hemmert, F. "The Shape-Shifting Future of The Mobile Phone." Sept 2010, 27 Feb 2011. <http://www.ted.com/talks/fabian_hemmert_the_shape_shifting_future_of_the_mobile_phone.html>.

Highmore,B. "Bitter After Taste: Affect, Food and Social Aesthetics." *The Affect Theory Reader*. eds. Gregg, M, Seigworth, G.(2010): 118-137.

His Holiness the Dalai Lama. *A Policy of Kindness.* Ithaca: Snowlion Press, 1990.

"Home Truths About Telecoms". 7 Jun 2007,12 Dec 2010. <http://www.economist.com/node/9249302?story_id=9249302>.

"International Telecommunications Union Statshot." Aug 2011, 11 Aug 2011. <http://www.itu.int/net/pressoffice/stats/2011/03/index.aspx>.

Ito, M and Okabe,D and Matsuda, M. *Personal, Portable and Pedestrian: Mobile Phones in Japanese Life.* Cambridge, Massachusetts: The MIT Press, 2005.

Izard, C.E. *Human Emotions*. New York: Plenum Press, 1977.

Katz, J.E. "Mobile Communication and the Transformation of Daily Life: The Next Phase of Research on Mobiles." *Knowledge Technology, & Policy*, Vol. 19. No. 1 (2006): 62-71.

Katz, J.E., Aakhus, M. *Perpetual Contact*. Cambridge: Cambridge University Press, 2002.

Katz, J. E *Handbook of Mobile Communication Studies.* Cambridge, Massachusetts: The MIT Press, 2008.

Katz, J.E. *Magic in the Air.* New Brunswick: Transaction Publishers, 2006.

Kelly,K. "How Technology Evolves." Nov 2006, Jul 29 2011. <http://www.ted.com/talks/kevin_kelly_on_how_technology_evolves.html>.

Kreisler, H. "The Network Society and Organizational Change." 9 May 2001, 22 May 2011. <http://globetrotter.berkeley.edu/people/Castells/castells-con0.html>.

Lanier, J. *You Are Not A Gadget*. New York: Vintage Books, 2010.

Lasén, A. "Affective Technologies - Emotions and Mobile Phone". 2004, 27 Feb 2011. <http://74.125.155.132/scholar?q=cache:_rvpEugZnAJ:scholar.google.com/+amparo+lasen+vodafone+receiver+affective+technologies+mobile&hl=en&as_sdt=0,5>.

Lasén, A. "Mobile Media and Affectivity: Some Thoughts about the notion of Affective Bandwidth." *Mobile Media and the Change of Everyday Life.* Höflich, Joachim R. / Kircher, Georg F. / Linke, Christine / Schlote, Isabel eds. (2010): 1-23.

Lasén, A. "Mobile Culture and Subjectivities: An Example of the Shared Agency Between People and Technology." *Interacting with Broadband Society.* (2010): 1-17.

Lasén, A. "Understanding Mobile Phone Users and Usage." Newbury: Vodafone Group, 2005.

Licklider, J.C.R. "Man-Computer Symbiosis." *The New Media Reader*. eds. Wardrip-Fruin, N and Montfort, N. (2003): 74-82.

Ling, R. *New Tech, New Ties*. Cambridge, Massachusetts: The MIT Press, 2008.

Ling, R and Campbell, S. eds. *The Reconstruction of Space and Time.* New Brunswick: Transaction Publishers, 2010.

Longo, G.O. "Body and Technology: Continuity or Discontinuity?" *Mediating The Human Body.* Fortunati, L, Katz, J, Riccini, R. eds. (2003): 23-29.

Lopez, B. 'Coldscapes.' Dec 2007. 27 Feb 2011.<http://ngm.nationalgeographic.com/

2007/12/permafrost/barry-lopez-text/1>.

Lottridge, D, Moore, G. "Designing For Human Emotion: Ways Of Knowing." *New Review of Hypermedia and Multimedia*, Vol 15, No 2 (2009): 147 -172.

Lowenthal, P.R. "The Evolution and Influence of Social Presence Theory On Online Learning." T. T. Kidd ed. *Online education and Adult Learning: New frontiers for Teaching Practices* (2009): 124-139.

McLuhan, M. *Understanding Media: The Extensions of Man.* New York: Mentor, 1964.

Massumi, B. 'The Autonomy of Affect.' *Cultural Critique*, No.31 (1995): 83-109.

"Millennials: Confident, Connected, Open to Change." 24 Feb 2010, 8 Dec 2010.<http://pewsocialtrends.org/2010/02/24/millennials-confident-connected-open-to-change/>.

Negroponte, N. P. *Being Digital*. New York: Vintage Books, 1996.

Nevejan, C. *Presence and the Design of Trust*. Doctoral Thesis. University of Amsterdam, 2007.

Nold, C. *Emotional Cartography: Technologies of the Self*. London, 2009.

Norman, D.A *The Design of Everyday Things*. New York: Basic Book, 1988.

Picard, R.W. "Affective Computing." *M.I.T Media Laboratory Perceptual Computing Section Technical Report no321* (1995): 1-16.

Picard R.W. *Affective Computing.* Cambridge: The M.I.T Press, 1997.

Putnam, R.D. *Bowling Alone: The Collapse and Revival of American Community.* New York: Simon & Schuster, 2001.

Richtel, M. "A Short-Circuit to Distracted Driving" 21 Jan 2011, 9 June, 2011<http://www.nytimes.com/2011/01/21/technology/21distracted.html>.

Riegelsberger, J.M, Sasse, A, McCarthy, J.D. "Trust in Mediated Interactions." *The Oxford Handbook of Internet Psychology.* McKenna, Postmes, Reips eds. (2007): 53-69.

Robles-De-La-Torre, G. 14 Aug 2011. "International Society for Haptics: Haptic Technology, An Animated Explanation." <http: Isfh.org>.

Shouse, E. "Feeling, Emotion, Affect." M/C Journal 8.6 (2005). 14 Aug. 2011 <http://journal.media-culture.org.au/0512/03-shouse.php>.

Scoop.co.za. 25 May 2011, 2 Jun 2011. <http://thescoop.co.za/posts/show/5637&fb=1>.

"Teens and Mobile Phones." 2010. 12 Jan 2011. <http://pewinternet.org/Reports/2010/Teens-and-Mobile-Phones/Chapter-3/Always-connected.aspx>.

"Teens and Sexting" 15 Dec 2009, 12 Aug 2011.<http://www.pewinternet.org/Reports/2009/Teens-and-Sexting.aspx>.

The Big Bang Theory, CBS October 2009.

"The New Centrality of Mobile Phones: How Adolescents Text & Talk With Friends And How That Compares With Other Forms Of Interpersonal Communication." Mar 2011, 12 May 2011. <http://www.pewinternet.org/Presentations/2011/Mar/SRCD.aspx>.

"The World in 2010." Dec 2010, 8 December 2010 <http://www.itu.int/ITU-D/ict/material/FactsFigures2010.pdf>.

Turkle, S. 'Always-On/Always-On-You: The Tethered Self.' *Handbook of Mobile Communication Studies.* ed. Katz, J.E. (2008): 121-137.

Turkle, S. *Alone Together: Why We Expect More from Technology and Less from Each Other*. New York: Basic Books, 2011. Kindle.

Turkle, S. "Alone Together."2 June 2011, 3 June 2011. <http://richmedia.lse.ac.uk/

publicLecturesAndEvents/20110602_1830_aloneTogether.mp3>.

Vincent, J, Fortunati, L. eds. *Electronic Emotion.* Bern: Peter Lang, 2009.

Van Mensvoort, K. Grievink, H.J. eds. *Next Nature.* Forthcoming.

Appendix 1: Highlights of the 'Me & My Mobile' Survey

Survey: opened 22 June 2011 – closed 1 Aug 2011.

Respondents: 118

Gender: 69 Females, 47 Males, 2 Unknown.

Average Age: 32 years

12. When I leave my phone at home by mistake I...(you can choose more than one)

	Response Percent	Response Count
Go back for it as quickly as possible	34.9%	37
Feel anxious until I have it again	**50.9%**	**54**
Won't go back for it but let my contacts know I'm not on my mobile	16.0%	17
Wouldn't be bothered	16.0%	17

16. The words I use MOST to describe my mobile phone are (you can choose more than one):

	Response Percent	Response Count
Essential	61.8%	68
Stubborn	0.0%	0
Unpredictable	3.6%	4
Dominating	9.1%	10
Clever	21.8%	24
Frustrating	6.4%	7
Intrusive	9.1%	10
Social	42.7%	47
Useful	**75.5%**	**83**
Confusing	0.9%	1
Annoying	8.2%	9
Functional	58.2%	64
Comforting	14.5%	16
Fun	29.1%	32
Beautiful	14.5%	16
Slow	13.6%	15

17. My mobile helps me create deeper connections with other people

	Response Percent	Response Count
Yes	38.9%	42
No	21.3%	23
Sometimes	**39.8%**	**43**

18. I would choose mobile communication over face-to-face communication...

	Response Percent	Response Count
Never, I always prefer face-to-face communication	24.3%	25
When I have to say something awkward or let someone down	6.8%	7
When I'm too shy to say something in person	9.7%	10
When I'm making plans via text with more than one person	34.0%	35
When I want to say something short and quick	**68.0%**	**70**

19. If my friend or partner checks their phone for messages while we're eating a meal together

	Response Percent	Response Count
It doesn't bother me	24.8%	26
I think it's rude	28.6%	30
I prefer if they do not check it	**46.7%**	**49**

20. I can say things on text I would not say in face-to-face conversations

	Response Percent	Response Count
Yes	18.0%	20
No	**45.0%**	**50**
Sometimes	36.9%	41

25. Once I have read a text message and I know the sender can see I have read it, I will feel pressure to respond

	Response Percent	Response Count
Yes	18.2%	18
No	19.2%	19
Maybe, depends on the person	27.3%	27
Maybe, depends on the message	**35.4%**	**35**

26. When I text someone I expect a reply within

	Response Percent	Response Count
A few minutes	21.6%	21
Within the hour	25.8%	25
A few hours	12.4%	12
The course of the day	**40.2%**	**39**

33. The last time my mobile was lost or stolen I

	Response Percent	Response Count
Felt relieved	0.9%	1
Felt anxious because I had lost everything	36.4%	39
Felt anxious at losing the phone but okay because I backed up	19.6%	21
This has never happened to me	**43.0%**	**46**

34. I switch my mobile off completely...(you can choose more than one answer)

	Response Percent	Response Count
I don't ever turn my phone off	13.2%	14
I turn it to 'silent' instead of off	57.5%	61
So I can be free of the demands of my friends and colleagues	9.4%	10
Only when I go to bed	11.3%	12
On a flight	**67.0%**	**71**
When I'm driving	0.9%	1
When I'm at formal occasions like weddings	21.7%	23
When I'm in the cinema	26.4%	28

35. If my phone warned me about angry text messages *before* I read them...

	Response Percent	Response Count
I'd find that useful	27.6%	29
I wouldn't use that feature	**72.4%**	**76**

36. If my phone could accurately measure how honest a person was being in a mobile conversation that I was having with them...

	Response Percent	Response Count
I would love that	24.8%	26
I might use that feature	**38.1%**	**40**
I wouldn't use that feature	37.1%	39

Comments:

Creepy

Not sure if this is possible - we would bunch of pseudo psychos running around??

Do you refer to a kind of bullshit radar? Hummmm... sounds like a very "accurate" science.

Sounds like an impossible to work feature - it's an implausible scenario.

37. If my phone could block me from sending texts when I've had too much to drink

	Response Percent	Response Count
I would use that feature	14.3%	15
I might use that feature	33.3%	35
I would not use that feature	**36.2%**	**38**
I don't drink	16.2%	17

39. If my mobile could tell if someone liked me (romantically)

	Response Percent	Response Count
I would find that useful	17.8%	16
I might use that feature	18.9%	17
I would find that info useful but would not trust the phone with this task	**63.3%**	**57**

Comments:

Really? Get real!!

not sure....I would have permanent anxiety with my partner and all their admirers....

Do not need phone application for this: if he does not cal you back: he does not like you if he calls you back: you will get laid!

40. If my mobile could tell me how medically depressed or happy I was I….

	Response Percent	Response Count
Would find that useful	9.0%	9
Do not want to know	32.0%	32
I might find that useful	24.0%	24
Would find this info useful but do not trust my phone to do this	**35.0%**	**35**

Comments:

You must be loopy to think that that was possible!

No - a phone is a phone, not a doctor.

I don't need a mobile to tell me this information.
I would not want my electronic devices to react to my moods, nor to record my moods or emotions. They are there to perform a function (call, text, calendar, email, internet, GPS sometimes) and if I were medically depressed, I'd expect a doctor to tell me.
would be cheaper than a shrink..... and as you can get Prozac online, your phone can also sms you your prescription .....
Life is busy and intense. If they find a way to make phones more intuitive I say, "Bring it!"
Headline; Phone app sends people off the edge!
No, because you would become too reliant on your phone dictating how you were feeling. Rather than you decide...it may decide...
Might be useful but if I felt like I was in a funk then I'd go to a psychiatrist rather than trust my phone to diagnose me.

38. If my phone recognized my mood and then screened my calls on that basis I would

	Response Percent	Response Count
Find that useful	15.2%	16
Not find that useful	**58.1%**	**61**
Might find that useful	26.7%	28

Additional Survey Comments

Q: If my phone recognized my mood and then screened my calls on that basis I would

All these questions are problematic for me. I feel that the phone is already mediating my interactions, giving it more automated functionality is dangerous.
I have started using app Gotta a Feeling to register my moods...temporary...but yes, could be cool if that tied into your memento diary and your social networking....but pretty discrete on this in public.
Please tell me, these last questions are jokes.....

Q: I can say things on text I would not say in face-to-face conversations

Saying some things over text is much easier than saying them to that person's face. Especially when it comes to the opposite sex and you're discussing emotions and how you feel about one another. It's also odd (I'm very conscious that I do this which is why I find it odd --- I'm highly aware of my own behaviour at the time) because I'm really careful how I phrase things -- I'm more likely to be overly cautious when putting together a text messages that I know has the potential to be misunderstood.

Only when it comes to flirting and sexual innuendo...

Q: When I text someone I expect a reply within
I get really nervous if I don't get a response, it may even result in my giving a cold shoulder if response is significantly delayed. This is cooked.

Q: When I send a text message that ends with one or more 'X' I want to
We don't use x in Portuguese. If in English, my interpretation has always been "kiss" or "cheers", and I may reply using X as well, depending on the person.

The X is not a "thing" in my native language.

Q: Predictive text inserts words in my messages and this changes the meaning I intended to convey.
This is the single most hated function. It feels like something is trying to put words in my mouth! Especially since i have quite a unique way of saying things and this function just messes with my voice!
Hate predictive text
Loathe predictive
I hate predictive text, avoid it like the plague
Mine sucks big time.

Q: When I check into a place using mobile applications like Foursquare or Facebook...I seldom check in places because I don't like people always knowing what I'm doing or where I am. I only use it at places I think are really interesting as a way of sharing and experience that is out of the ordinary. Happy hour drinks at my local bar aren't interesting enough for me to feel the need to share.

Q: The last time my mobile was lost or stolen I

don't know people's numbers anymore - they're all on my phone. losing a phone = losing people

felt anxious at losing the phone and having all my personal information in someone else's hands, even though i had backed up.

But if it did happen, I would be concerned because my facebook, twitter and gmail accounts are open and I'd hate someone else to start using my accounts before I got to change the passwords.

Appendix 2: Field Notes: Images

Figure 1: Alone Together, commuters wait and text at a train station in central London (photo: Koos Groenewald).

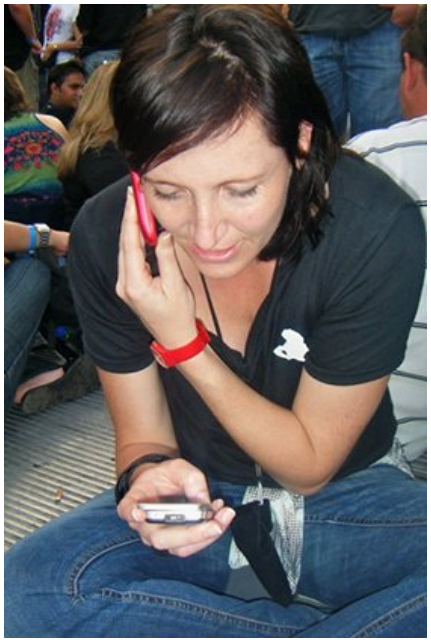

Figure 2: Relentless connectivity, a concert goer in Johannesburg texts and talks simultaneously (photo: Bart Maritz).

Figure 3: Alone Together, travelers text while waiting at Barcelona airport (photo: Natalie Dixon).


Figure 4: Disconnected: policeman simultaneously patrol the streets of Rome and chat on their mobiles (photo: Natalie Dixon).

Figure 5: Alone Together, commuters en route to Rotterdam share a compartment but their attention is elsewhere (photo: Natalie Dixon).

Figure 6: Affect in the air: a couple in Barcelona share a meal, entertainment courtesy of the Blackberry and Facebook (photo: Natalie Dixon).

Figure 7: Affect in the air: Friends share excitement over a mobile photo in Barcelona (photo: Natalie Dixon).