

Digital Inscriptions and Loss of Embarrassment: Some Thoughts about the Technological Mediations of Affectivity

Amparo Lasén
Universidad Complutense de Madrid

ABSTRACT

One of the consequences of the widespread use and ubiquity of digital technologies is how a growing number and kind of exchanges and information are inscribed in and by these devices, as texts, images and sounds, contributing to the materialization of emotions and feelings. These affective inscriptions increase our reflexivity and the sharing of emotions, the attachment between people and devices, as well as the mediated attachment and attunement to other people. These inscriptions that increase the ability to read and keep track of affects and relationships contribute to the shaping of our affective cultures, as well as to contemporary modes of subjection. Contemporary transformations of the threshold of embarrassment regarding the disclosure of personal information and personal images online are an example of this digital contribution to our affective culture.

KEY WORDS: digital inscriptions, affective turn, affective paradox, embarrassment

INTRODUCTION

If we agree with cultural analyst Evan Eisenberg (2005) that writing turned poetry into a thing and that music became a thing thanks to recording technologies, we could ask ourselves whether information and communication technologies (ICTs) are transforming emotions into things due to the inscriptive power of digital devices and their growing mediation of affective relationships and interactions. Thus, mediated affects would become things inscribed in our phones, tablets, computers and screens, that we can manage, count, weigh, compare, read, share, interpret and distance ourselves from. This “we” reading and listening to these affective inscriptions afforded by digital devices covers diverse agents with different and sometimes conflicting agendas: people involved in different interpersonal relationships; designers and engineers thinking in terms of “affective bandwidth” or emotional usability; commercial agents leading marketing strategies; or public authorities engaged in the somehow “schizoid” task of trying to gather information about their citizens, as well as trying to control and limit who makes these affective inscriptions and how they are made.

In this paper I discuss digital mediations of affectivity highlighting the implications of the inscriptive power of these technologies. The shared agency between people and technologies, the participation of these devices and applications in everyday interactions and relationships, and the ways in which current forms of remediation (Bolter & Grusin, 1999) configure affective experiences, constitute both an arena to study contemporary dynamics of continuities and shifts in our affective culture and emotional styles, as well as a privileged stage to deploy the study of emotions and test its different versions and concepts.

After a section on the growing interest about affects and emotions in different social realms, from social sciences to computing, design and management, the prevalence of dualisms in the different versions of studying and conceiving emotions is discussed, as well as the paradoxes derived from these assumptions. Then, I consider the notion of digital inscriptions and explore the transformations of embarrassment revealed by many contemporary digital practices, which help us to nuance and problematize the notion of ‘affective bandwidth’ and the views on affectivity underlying such concept.

This paper is grounded on empirical research on mobile media carried out for the last decade, though it is not going to be discussed here. Mobile phones are at the center of this research, in convergence with other devices and applications. This empirical background relates firstly to the implications of digital photography for contemporary embodiment processes and the redefinition of intimacy, regarding self-portraits, their exchange in the Net or through mobile applications, as well as their growing presence online, from social network and sharing sites, to online dating sites or Instant Messaging exchanges¹ (Lasén & Gómez, 2009; Lasén, 2012). Secondly, research about mobile phones and couples relationships² focusing on communication, personalization and conflicts (Lasén, 2011; Lasén & Casado, forthcoming) provides material and examples for this discussion. Thirdly, previous research about mobile phones and emotions, part of a European cross-national

¹ Research Project “Estrategias creativas de los jóvenes y redes culturales para el desarrollo” in collaboration with the UNED (Spain) and UAM (México) funded by Fundación Telefónica; and the GRESKO project “Digital self-portraits and contemporary masculinities” in collaboration with Antonio García (UCM).

² “Nuevas tecnologías de la comunicación y rearticulación de las relaciones de género: emergencia, expresión y gestión de los conflictos en la pareja” Research Project funded by the Spanish Ministry of Science and Innovation, carried out with my colleagues of the University Complutense of Madrid, Elena Casado, Rubén Blanco and Antonio García (2009-2011). ‘La contribución de los usos del teléfono móvil a la configuración y transformación de redes, vínculos y subjetividades’ by the Complutense Research Group Cibersomosaguas (2007-2008); Proyecto Complutense 2006 “La mediación de subjetividades e identidades sociales a través de la telefonía móvil,” with my colleagues from the University Complutense of Madrid, Angel Gordo and Lucila Finkel.

study about mobile phone users and uses, helped to ground a reflection about what an affective mobile phone could be (Lasén, 2004, 2005, pp. 121-187).³

AFFECTIVE TURN

Since the mid-eighties of the last century, an increasing interest in emotions and affectivity has entered social sciences and social practices. This affective turn (Clough & Halley, 2007) is related to social changes in Western societies in the way of considering emotions, subjectivity and their relationship to rationality. It comes after several decades of theoretical critique and questioning of the traditional rationalist view of emotions. This conception considers emotions, at best as some luxury belonging to art and idleness and, at worst, as an obstacle to clear judgment. Therefore emotions had been relegated to private space and intimacy. As Norbert Elias (1982) points out, discipline and the self-constraint of emotions and urges became necessary in societies with growing complexity and social differentiation. In these rationalistic societies, ‘emotional’ is not only an adjective simply denoting that something or someone is related to emotion, but also it becomes a pejorative adjective. Those characterized as emotional – women, children, primitives – were thought to lack the fundamental ability to think and decide rationally, and were placed in the lower levels of the social and even human hierarchies.⁴

The social changes in Western societies that have modified this picture have been analyzed under the label of the crisis of modernity, postmodernity, reflexive modernity or post-industrial societies. In contemporary society, the expression of one’s subjectivity becomes almost a claimed right (Mansfield, 2000, p. 2). For more than thirty years now, social scientists have analyzed these changes in the social considerations of emotions and feelings, either to denounce the tyranny of intimacy and the vanishing of public space (Sennett, 1977) or to criticize the excess of rationalism, acknowledging that emotions are not only individual and psychological features but fundamental aspects of social life (Maffesoli, 1993). The tension between a civilization process marked by the restraint, shield and control of emotions and bodies, and the necessary emotional attunement for social life would be one of the features of modernity and its paradoxes.

Besides the different diagnosis and evaluations, what has been manifested in the realm of social sciences these last decades is the importance of seizing the role of emotions in the constitution of social experience, in order to understand what is at stake for people in everyday life (Lutz & White, 1986, p. 431). Emotions are necessary to understand social experiences, as they are part of these experiences and are also shaped by them. Therefore emotions are subject to cultural, collective and historical variations. Feelings are socialized (Hochschild, 1979), which entails learning how to feel, display and interpret emotions in different affective cultures. Emotional labor and management characterize a big part of the way people experience affectivity, and both are increasingly mediated by ICTs.

This attention to emotions arises as part of the effort to counteract the disembodied character of classic social theory, strongly supported and initiated by feminist theorists and women studies, and therefore goes with the centrality of subjectivity and embodiment in socio-cultural

³ Certain sections of this paper have been published in Lasén, 2010a.

⁴ The opening paragraph of the preface of *Affective Computing* by MIT researcher Rosalind Picard (1997) clearly summarizes the dominant Western conception of emotions, expressed with her personal unease:

I never expected to write a book addressing emotions. My education has been dominated by science and engineering, and based on axioms, laws, equations, rational thinking, and a pride that shuns the ‘touchy-feely.’ Being a woman in a field containing mostly men has provided extra incentive to cast off the stereotype of ‘emotional female’ in favor of the logical behavior of a scholar. For most of my life my thinking of emotions could have been summarized as: “Emotions are fine for art, entertainment and certain social interactions, but keep them out of science and computing” (p. X).

studies. This turn happened as well in culture and media studies with some authors' claim to shift the centrality from meaning to affect (Grossberg, 1992) acknowledging that culture and also media cannot be totally accounted for just as "signifying practices." Besides, meanings and affects are narrowly linked, as meanings are constructed in a constant movement of attunement, which makes them emerge and is made possible by the sharing and emergence of emotions.

Computing and technological design and usability are also part of this turn, with the emergence and development of affective computing, emotional usability and emotional design. Affective computing refers to giving computers the ability to recognize, express and have emotions in order to improve human-computer interaction (Picard, 1997, 2003), as people tend to interact socially and emotionally with computers (Reeves & Nass, 1996). Applications of affective computing are found in different shapes (wearables, autonomous agents, robots, software) and in different areas, such as entertainment, learning systems, simulations, surveillance and security applications.⁵ Design and usability research have developed emotional awareness as well, taking into account pleasure, enjoyment and fun (Norman, 2003). This is a new way of understanding design that adds to the traditional engineering and scientific skills, the support of psychology, sociology and arts. The aim of both affective computing and emotional design is to make ICTs uses and experiences an emotionally richer interaction, multi-media and multi-sensuous, which would improve communication and task performance. They wish to contribute to people's awareness of their emotional style, and, in the case of affective computing, to make computer devices a kind of emotional intelligence tools. A contemporary example of this are the multiple mobile applications for couples developed and marketed recently (Feel Me, Avocado, Duet, Cupple, Between, Tokii, etc.), which work as a kind of a two-persons social network aiming to increase the couple continuous connectivity and their affective attunement, facilitating the sharing of personal messages and nonverbal affective cues (as the "thumbkiss," a vibration of the phone when both partners place their thumbs on the phone screen at the same time); as well as they allow an increased mutual surveillance and permanent localization.

This affective turn seems to be another example of the interaction between forms of academic and scientific knowledge and other social discourses and practices. Nowadays there is an interest in emotions by the public at large, manifested for instance in media and media studies, marketing, advertising, politics and political communication, or in the notion of emotional intelligence (Gardner, 1973; Goleman, 1997) being embraced by educators and businessmen alike. This growing concern about affectivity is also related to the renegotiation of the boundaries between private and public, leisure and work, and personal and professional. Emotions belonging to privacy, leisure and personal realms are now explicitly mobilized in public and working activities, and considered to be ways of augmenting productivity and efficacy. A phenomenon well seized in the term "playbour" used for instance to describe free labor, fan labor and peer production, as in the digital games industry (Kücklich, 2005). In these uses and practices emotions are targeted to increase productivity, to bring more efficacy and efficiency to working tasks, and to make time use more productive.

This is also found in the way people use technological devices for interpersonal and affective communication and relationships. For instance, in our research about couples and mobile phones, housewives describe their use of the mobile for family matters and exchanges using the same terms "efficacy," "efficiency," "time spare," which their husbands use to portray the advantages of the mobile phone use for work. Another example can be found in online dating sites advertising, which puts forward the advantage of their services in terms of productivity, efficacy and time sparing. These considerations are found as well in the accounts of users to describe their motivations and

⁵ See for instance affective computing projects at the MIT, <http://affect.media.mit.edu/>.

practices in their online search for sexual or loving partners. Regarding the renegotiation of boundaries between work and leisure, or professional and personal relationships, it is noticeable the mutual borrowing of social practices and Internet applications, such as social network sites where the same design architecture serves both. Another example can be found in “speed dating” gatherings, a direct application of economic rationality to the realm of matchmaking and dating. Shortly after their first apparition in the late 90’s in the US and the UK, business speed dating was organized as well, as a way of providing contacts for professionals working in the same branch. Moreover, similar mechanisms are proposed to improve learning activities (Maidment & Crisp, 2007), revealing the growing fluidity between those different realms in contemporary societies, the articulation between affectivity, group dynamics, efficacy and learning.

The practices and spaces where emotions are expected are no longer considered secondary, revealing the growing importance of leisure activities and popular culture, not only economically but also in terms of personal self-fulfillment. Changes in the capitalist system and the modes of working organization in enterprises reveal an increasing concern with the emergence and mobilization of desires, hopes, beliefs, expressions of feeling, changes of sensibility, forms of intuitive intelligence and new communicative resources (Thrift, 2006). Affect becomes an economic factor necessary to the governing of productivity, not only because affectivity is increasingly commoditized and mobilized in the workplace, as affective labor and emotional labor theories state (Hochschild, 1983; and authors such as Hardt and Negri, Lazzarato, Virno, see Hardt, 1999), but also because economic value is measured affectively.

Therefore, affective computing software and applications would help to augment people efficacy and productivity, as well as to increase surveillance by gathering knowledge and data about emotional styles and people’s affects. Biometrics-based surveillance systems are just one of these examples. Questions about privacy, surveillance and the disclosure of personal information, are not often addressed by affective computing research, which only recently has started to consider the ethical implications of its applications. However ethical issues are addressed by proposing a contract between users and designers, as if they were the only actors involved (Reynolds & Picard, 2004). Although an effort is being made in this field, mostly in the work of Carson Reynolds, surveillance, harmful and unethical uses of affective computing, are mainly thought of as the consequences of misuse, accidents or some unruly individual behavior (Reynolds & Picard, 2005). The consideration of whether it is right to contribute to affective labor and the mobilization and surveillance of emotions for increasing work efficacy, productivity or consumption, is absent of such writings on ethics. This absence is maybe related to the lack of socio-cultural considerations in their way of approaching emotions.

Affective computing adopts a naturalistic version of emotions, which recognizes their link with cognition but tend to ignore social issues and social sciences literature concerning emotions and their cultural variations (Despret, 2004). Emotions are considered to be natural, universal, reactive, situated and measured biologically in the body and its organs. This choice is understandable because the simplified and systematic conceptualization of emotions and emotional expression makes easier the formulation of models susceptible to be implemented in software, robots and other computational devices. However this could be an obstacle to the main objective of affective computing: the achievement of the emotional interaction between users and devices. This ignorance of the socio-cultural aspects of emotions is doubled with a lack of consideration of the dark side of emotions. Affective computing authors tend to identify emotion with positive emotions and forget that all affects are not affects of joy. ICTs uses and practices entail many examples of these bad encounters that trigger passions of sadness, borrowing Spinoza’s terms: harm, flaming, trolling and bullying. Anger, anguish, anxiety, embarrassment, guilt, and sadness are emotions as well, which are as well present, shaped and elicited in digital practices and, as Spinoza points out, these affects

diminish people's abilities to act and achieve.

Following the scientific and biological categorization of emotions, these researchers do not seem to acknowledge the ambivalence and mixed feelings involved in any emotional experience, and that affective technologies or emotionally richer human-computer interactions would not eliminate the frustration and paradoxes inherent in social bonds and human communication. For instance, mobile phones, as in the previous example of mobile apps for couples, can increase the possibility of making good encounters, of being connected to those who bring us joy and relieve our sadness and stress. But being a device of social connectivity, they often make explicit and visible the lack of contact, when no call or message is received. They also create the occasion for bad encounters (unwanted calls, excessive requests, disturbing interruptions), often with these same loved ones, and reveal unrequited communication expectations, as it can happen within the couple, which can elicit disappointment and conflicts.

VERSIONS OF EMOTIONS AND DUALISMS

The study of emotions mobilizes interdisciplinary approaches, from psychology, biology, neurosciences, sociology, anthropology, and philosophy, acknowledging the interplay between psychobiological and socio-cultural determinants that do justice to the complex, multi-component phenomenon called emotion (e.g. Damasio, 1994). When studying emotions we come across a plurality of terms: affect, emotion, passion, sentiment, feeling, and multiple definitions and conceptions. There are different versions of what emotions are and entail, corresponding to a plurality of notions, controversies, knowledge and disciplines (Despret, 2004).

These versions reproduce diverse dualisms regarding the way of conceiving emotions such as: reason/emotion, body/mind, universal-natural/socio-cultural, internal/external, active/passive-reactive. Thus, the traditional Western approach defines emotions as opposed to reason. They are considered to be passive reactions to external causes, which elicit them. Situated in the body, they are therefore revealed and measurable in biological processes. Emotions and their bodily manifestations are considered to be universal, common to all human beings regardless of socio-cultural and historical variations. This version has helped to develop many techniques and modalities used to detect physiological signals of affects, such as facial expression recognition, speech prosody recognition, and pressure sensors. Following the influential work of Charles Darwin (1872), the tenants of this version consider emotions as universal and adaptive: a biological navigation software developed through evolution to be used by individuals or groups. Cross-cultural research on emotion such as the 'neurocultural' research program led by Paul Ekman (Ekman, Friesen, & Ellsworth, 1992) draws on Darwinian insights, which studies facial expressions of emotions. This is one of the main conceptual backgrounds of affective computing as well.

The neurologist Antonio Damasio presents another current influential version of emotions, which, while criticizing the classic divide between emotion and reason and demonstrating the crucial role of emotions in rational decision-making processes, translates the body-mind duality in his differentiation of feelings (private mental representations) and emotions (public and bodily automatic responses) (Damasio, 1999). To this list of dualities concerning emotions, we could add another found in recent versions under the label 'affect theory', which oppose emotion and affect, (Deleuze & Guattari, 1987; Massumi, 2002, p. 28) influenced, as Damasio's work, by Spinoza. Emotions are considered to be individual, experienced as personal, a subjective content, fixed by social convention and language, endowed with meaning and function, subject to socialization practices and strategies of emotional labor and management, of intentional control and performance,

whereas affect would be pre-individual, non intentional, unqualified and unrecognizable.⁶ This duality accounts for the non-social and non-conscious aspects of affectivity, without renewing the old conception of considering emotions universal, natural, and authentic, but sharing somehow some aspects with that approach, regarding the non-conscious and bodily character of affects. As the bodily 'innate' movements involving facial muscles, viscera, the respiratory system, skin, blood flow changes and vocalizations, which are triggered by uncontrolled factors, are considered to be the sign of affects, affectivity would be a form of 'visceral perception' preceding perception, accounting for the autonomy of affect regarding consciousness and language (Massumi, 2002, p. 25; a similar account can be found in Damasio's work with different terms, emotion for the visceral reaction prior to perception, and feeling for the conscious perception).

This naturalistic approach is doubled with the belief that emotions are a sign of the authentic self and state of mind. This idea of the authenticity of affects that are neither socialized nor under the individual control can also be found in affect theory. Considering emotions as reactive, outside people's conscious control, grounds for its authenticity and force. Individuals would be betrayed by their body reactions, from gestures to blood pressure, which would reveal their true state. This view does not account for all the forms of emotional management and control that have become habits and non-conscious, as well as the ways of expressing and displaying emotions, which are socially shaped and learnt.

This view coexists with the belief that passions can drive yourself away from your sense, that you are not yourself when too moved, as you are not able to see and reason clearly. Both beliefs produce what can be called the affective paradox. We would be outside ourselves when we are more authentic. As if socialization and individualization were a fake cover over our true self. But affects and emotions are source and effect of attachments: to other people, ideas, and things. Therefore affective authenticity would be linked to attachments, subjections, and dependencies, putting at risk as well the common view of the true and authentic self as an autonomous one. This ambiguity is stressed by contemporary conceptions of emotions as they are popularized by advertising, corporate management strategy or commercial media, with that double rhetoric about the importance of being passionate, spontaneous and involved, but also of being in control of what happens, of one's life, relationships, activities and feelings. In these brief accounts of contemporary subjectivities that are the self-presentation profiles of online dating sites, this double character of being passionate and spontaneous, but in total control as well, is found very often. This paradox about self-control and authenticity also points to the ambiguous status of intentional behavior, as the link between emotions and authenticity would entail that we are more authentic, closer to our true self when not acting intentionally.

The study of emotions is narrowly linked to the analysis and study of subjectivities, which are also burdened by a similar dualism, or by the attempts to overcome it by proposing a monist solution, a synthesis or harmonization of the opposed terms. Translating to the research about emotions what Elizabeth Grosz proposes for the study of subjectivities (Grosz, 1994), we could see that the problem with dualism is not that it differentiates and particularizes entities and concepts, but that these are placed in a particular relationship of opposition, hierarchy or exclusion that is supposed to always exist, for all cases and situations. Following Grosz, instead of replacing dualism by monism, and therefore losing the particularities and differences of the terms forming the duality, a more productive approach would be to consider the articulations and disarticulations, resonances and dissonances between those different terms in each particular situation. This is, how the body

⁶ This view fails to take into account that subjectivities and subjective matters, are not only related to the individual subject and social conventions, as complex dynamics, resistances and a multiplicity of actors, as the objects and technologies that form our material and media environment, are involved in the always dynamic subjectivation processes.

and the mind, the internal and the external, the collective and the individual, the biological and the cultural, as well as the different mediations and material conditions of our environment, are mobilized in the emergence, shaping, expression, display, performance, experience and understanding of emotions. This is to say, how the different approaches, the different versions of emotions, with their particular forms of knowledge, methodologies and research instruments, contribute to their shaping as well.

Then, we could recognize that the duality between affect and emotion quoted above can be considered differently as well, looking at how in everyday situations these individual and pre-individual aspects are both present, part of the same affective experiences, for instance by observing media practices where affectivity emerges and is mobilized. Søren Mørk Petersen's research about the sharing of personal pictures on the Web offers a good example of how in Flickr users' practices both forms coexist. The affectivity involved, as well as the emotions shared and the quality and intensity of the sharing experience, mobilized by the display in the pictures of the banality of everyday life, go beyond the function and meaning of the pictures shared, and relate to collective and common experiences. The subjective aspects of such practices are not necessarily conscious, individual and intentional, as it is revealed by the difficulties of the amateur photographers to explain why they take and share those pictures (Petersen, 2009). In our research about mobile phone uses and practices, both dimensions of affectivity are found as well, sometimes entangled in the same situation: the emergence of unforeseen and unintentional emotional experiences, as well as the collective conventional shaping of affects, strategies of control, face-work monitoring, accountability and modes of subjection (Lasén, 2011; Qiu, 2007; Green, 2001).

DIGITAL INSCRIPTIONS AND EMBARRASSMENT

The growing presence and uses of ICTs mediate people's relationships with their environment, the others and themselves, producing multimedia digital inscriptions of places, bodies and emotions, as well as contributing to the shaping of localities, affectivity and selves. These technological practices put into play a complex articulation between mobility and attachment: an increasing mobility, not only spatial, but also mobility of thoughts, ideas and feelings, whereas people's uses and social practices around these media reveal how they contribute to develop different kind of attachments, to the devices, to the applications, to other people, and to particular online and offline places. Digital technologies contribute to the materialization of affects through their inscription as text, images and sounds in our mobile phones and Internet applications such as emails, social networks sites, blogs and micro-blogs, instant messaging, forums or sharing sites. They take part in the emergence, shaping, display, management, control, expression and experience of positive and negative emotions, as well as in the social learning process of affective experiences and communication. These uses and practices are redefining the realm of intimacy (Perterra, 2005; Prøitz, 2005; Hjorth, 2008, 2011; Tomita, 2006; Crawford, 2008; Arminen & Weilenmann, 2009). Moreover, we have an affective relationship with our devices and applications, and are emotionally attached to them (Lasén, 2004, 2010; Vincent, 2005). This is partly due to the intrinsic emotional character of human interactions, and also because ICTs that are present in most of the settings of everyday life have become technologies of intimacy (Haraway, 1991; Fortunati, 2002) and technologies of the self (Foucault, 1988), which mediate our attachment to others.

Social bonds and relationships, as well as emotions, are mobile and fluid. They need to be followed, traced and localized. The possibility of keeping track of these movements, of stabilizing the affective flux of interpersonal contacts, depends to a great extent on the materiality of objects, bodies and devices. ICTs and their ability to keep the trace of communications, messages, social networks and activities are an example of this inscriptive power (Ferraris, 2005). They are not only

mediators of verbal, written, aural and visual communications but artefacts that make and keep multimedia inscriptions. They afford the inscription and visibility of users' social networks, of their significant ones' presence, and of their affective bonds materialized in the images, sounds and texts sent, received and stored. These devices can even provide insight into the degree of cohesion of relationships by keeping the trace of their intensity and the reciprocity between the partners. This can be measured through the register of calls and SMS, as some people do when they compare the frequency and amount of calls and SMS from and to their partners (Lasén, 2011).

Emotions are an example of the shared agency between individuals and other entities. Being acted upon, put into motion, and affected, can be considered ways of sharing our personal agency. Nowadays technology uses and practices entail forms of shared agency between people and devices, where both entities are affected and mobilized by the other, where uses are the result of negotiations and clashes between technical affordances, commercial conditions and people's intentions, aims, habits and obligations, and where non-intentional as well as non-conscious aspects are involved. This shared agency is a dynamic and learning process where all these aspects (affordances, conditions, norms, intentions, habits, experiences, emergences) are subject to change and mobilized too. People's relations with their digital devices are an example of a material and bodily tie that mediate other interactions. They facilitate some exchanges, activities and modes of control. They contribute to the eliciting, expression, communication and management of affects and emotions.

ICTs are taking part in the shaping of contemporary individuals and their interpersonal bonds. The shaping of the self also entails different modes of emotional attunement and attachment, modes of subjecting the self. In this case, the term 'subject' entails a double meaning. The first is subject as being subject to something or someone, under the power, control or dependence of another person, group or institution. The second is subject as constraint to a particular identity, self-conscience and self-knowledge (Foucault, 1982). Both meanings suggest a form of power that subjugates and shapes us as subjects. There are two modes of attachment regarding these technological practices: first, the relations between people and the devices, and secondly, the interpersonal relationships mediated by digital technologies. Therefore the dependence and attachment to the devices are both narrowly linked to the dependence and attachment to other people and to our obligations to them.

AFFECTIVE BANDWIDTH

The notion of 'affective bandwidth' refers to the amount of affective information relayed through a particular device or application (Picard, 1997, p. 57). It is currently used in affective computing, software and videogame design. The affective bandwidth of a channel refers to how much affective information the channel lets through. Information is conceived as "discrete units or states internal to an individual that can be transmitted in a loss-free manner from people to computational systems and back" (Boehner, DePaula, Dourish, & Sengers, 2007, p. 275). But this is a particular kind of information that concerns not only the kind of feeling or emotion but also the shades, the emotional tonality of the exchange and the mood of the participants. Affective computing researchers adopt a version of emotions, which is not opposed to cognition but a part of it. In this case, the duality between emotion and cognition is solved by reducing emotions to cognition standards, failing to account for the particularities of emotions and their socio-cultural implications.

According to affective computing researchers, this bandwidth increases when more senses are involved and also when moving from asynchronous to synchronic communication. Affective information would be shaped by immediacy and delay. Email and SMS would have the lower affective bandwidth, followed by IM, then phone conversation, then video conference, as the maximum would be found in face-to-face encounters. This sequence resembles the communication

stages of people meeting in online dating sites: first emails and chat, then webcam and phone, and finally the face-to-face date. However the affective intensity experienced in digitally mediated communication does not necessarily follow that path. For instance our research about couples reveal that the forms of written communication, as texts and *WhatsApps*, are more frequent and intense during the first stages of the relationship, when falling in love, as they are the favorite form for romantic exchanges, for describing and communicating feelings and moods. “Colder,” asynchronous, written media do not always facilitate colder emotional experiences. From cybersex to the anger or love bursts caused when writing or reading particular messages, many are the everyday examples of intense emotional experiences afforded by this media. In cybersex, talk and written chats “function as sex” (Attwood, 2009). They can be forms of sexual intercourse. Regarding the senses and the body, one should not forget that in spite of the distance, the delay, and the lack of clues about the physical presence of the other, bodies are there, involved and affected. The participants affect and are affected, feel in their bodies and their senses, the effects of the affective experiences they are living.

This affective intensity is increased by the digital inscriptions of these exchanges, which contribute to materialize our emotions in texts, images and sounds that we can store, revisit, share, comment or compare. All these activities afforded by digital inscriptions can elicit further emotions as well, revealing different affective tones, as when reading several times through the day the loving words of our partner, increasing as well our attachment, our subjection, to these devices and platforms where these inscriptions are kept and displayed.

The assessment of the affective bandwidth has to consider not only the affordances and constrains of the particular media but also the asymmetry of the sender and the recipient. The choice of a so called colder channel in order to minimize the affective implication of the sender, as part of the face-work when communicating some bad news or when the message risks to harm or upset the receiver, can have the effect of making the receiving experience a much more emotional one. As the recipient’s anger, frustration or sadness will be increased by the sender’s media choice, for instance, when a partner chooses to communicate the end of a love relationship by SMS or when an employer uses this same channel to let his workers know that they are made redundant.⁷ Once again one has to take in consideration the concrete situation of the exchange, the kind of relationship between the participants, the current norms setting their expectations, in order to asses the affective implications of a particular technological mediation.

It is usually assumed that technology-mediated communication always has less affective bandwidth than person-to-person communication.⁸ This comparison between face-to-face and technology-mediated communication does not take into consideration the specific affective affordances of ICTs. For instance asynchronous forms of communication, from love letters to e-mails and texts, provide a way of displaying the emotion of the sender and of eliciting emotional responses in the receiver, which is different from the face-to-face communication, without being necessarily less intense. In many occasions the absence of the face-work and self-control required by synchronous and co-present forms of communication facilitates the emergence of affective occasions, as in the examples quoted above about romantic SMS. In these cases a particular form of emotion, embarrassment, is lowered, making easier the emergence of other kind of affects and affective information, as people dare to say and to show what would remain silenced and hidden in face-to-face encounters.

⁷ In May 2003 British insurance company Accident Group fired 2400 workers, many of them received the announcement by an SMS sent by the human resources department to their company mobile phones, not during working hours, avoiding then a first collective reaction in the office, retrieved July 9, 2012 from <http://news.bbc.co.uk/2/hi/business/2949578.stm>

⁸ Of course it does not mean that face-to-face encounters are always affective experiences, as we all have experienced how impersonal and formal these exchanges can be, in administrative contexts for instance.

Contemporary digital practices and uses reveal a shift concerning what is considered to be embarrassing and how to deal with embarrassment, as in the self-disclosure and sharing of intimate personal information, feelings and body images (Lasén & Gómez, 2009; Lasén, 2012). This distribution of intimate images and narratives found in blogs, social network sites, social sharing sites, webs for personal contacts, and other online exchanges between friends, acquaintances or strangers, marks a current change about intimacy and what is considered to be embarrassing. These changes are related to the contents of what is shared, the people and audiences who share it, and the situations and “spaces” where the self-disclosure takes place. Distance, delay and anonymity, as in the display and exchange of naked pictures of faceless bodies, afford forms of empowering exhibitionism (Koskela, 2004) and self-deprecation humor.

We can find examples of this loss of embarrassment in the growing number of amateur porn websites, sexting practices or initiatives as the web vaginsoftheworld.tumblr.com; in the numerous video clips posted in social network or sharing sites showing people drunk, vomiting or realizing other physiological activities considered unsuitable for the public viewing, as well as in the online written accounts of personal problems related to health, love and sex life, and other aspects of intimacy. In many cases these accounts are shared with strangers in online spaces, sometimes in forums that were not created with the intention to host these intimate outbursts, as the very popular Spanish site forocoches.com, a website composed of multiple forums, addressed mostly to men, where threads are frequently found where men share their unfortunate love experiences and break-ups, in a way that is not common in traditional male exchanges, where affectivity and recognition of one’s failures and mistakes are considered inappropriate. Of course all these examples, practices and platforms are very different, involving different participants and rules; but all of them reveal a loss of embarrassment. In these digitally mediated situation sharing matters concerning bodies, feelings, sexuality, fears and weakness, often with completely strangers, is correct, fits with the other participants’ expectations.

The sharing of these practices in reciprocal exchanges with collectives whose expectations you meet (“If you do it alone you are mad, but if you do it with others...”) helps to explain the changes in the threshold for embarrassment. As this is a particular self-feeling, where one is the object and the subject, elicited by the failure to fit with other people’s expectations. Embarrassment is the affective cost of not following the scripts of normative experience, which therefore changes as these scripts move on. It is experienced during undesired intimate situations, when we are visible and not ready to be visible (Erikson, 1950, p. 223). Therefore the lower threshold for embarrassment found in digitally mediated interactions could be the sign of an increased readiness to be visible. These changes raise conflicting views about what is considered to be suitable, as in the example of public campaigns in different countries warning against self-disclosure, addressed to young people, especially women, in order to counter these trends and to put embarrassment back in the picture, using fear and highlighting potential risks and threads.⁹

Distant and asynchronous modes of communication help to avoid some of the risks and embarrassing consequences of emotionally charged exchanges, so that the apparent lower affective bandwidth appears to be an advantage for the display, expression and performance of more intense emotions. This shows the complexity of evaluating the affective bandwidth. Forms of communication considered “colder” than face to face, with a lower affective bandwidth, are sometimes more suitable to make oneself visible, thanks to distance and delay. Face-to-face

⁹ Often these campaigns shame young women who upload pictures or send MMS but not those who misuse these pictures in a kind of re-mediation of old practices of “slut shaming”, e.g. the Madrid Region Children’s Ombudsman Office campaigning “En la Web tu images es de todos”, <http://www.defensordelmenor.org/>; the US Campaign “Think before you post” by the National Center for Missing & Exploited Children and the Ad Council.

encounters are shaped by the face-work and the self-control of the participants. Technologically mediated encounters also have their forms of face-work and self-control, but very often they allow for rich affective exchanges and for more affective information to be exchanged, as it was already acknowledged by the MUD users interviewed by Sherry Turkle more than fifteen years ago (Turkle, 1995).

Fiction portrays this feature for mobile phones as a way of overcoming the expectations and norms developed in face-to-face encounters. That is, technological mediation re-mediate face-to-face interactions (gender, etiquette, appearance, language, class, etc.), allowing sometimes for different configuration. A good example is the short story of the Belgian writer Laurent de Graeve (2001), *Grégoire et le téléphone portable*. Grégoire is an upper class young man who has an extremely ritualized and formal communication with his father, a wealthy and busy chief director. They only meet once every three months for a lunch in the same expensive restaurant, the meeting always being arranged by the father's secretary. One day Grégoire's father is given a mobile phone and, for the first time in years, has the possibility of making and receiving calls without the mediation of secretaries and other employees. He phones his son and they have a more personal and intimate conversation than those face-to-face meetings over lunch. On this occasion Grégoire overcomes the constraints of his habits and education, as well as the fear of his father's authority and reveals to him that he is in love with another man. This is an example of how the participation of ICTs in our interactions changes their semiotic situation, as their mediations and the delay they facilitate cancel the "I am looking at you looking at me" immediacy. Forms of remediated immediacy emerge reconfiguring an intimacy that can be public, asynchronous and at distance. In the example of this short story the mediation of the mobile phone replace or weaken the usual mediations in the communication between father and son, making possible to overcome habits and non-written rules. The secret is revealed without eliciting embarrassment and the mobile conversation gives occasion to a much more affective and intimate exchange between both men.

The transformation of social norms concerning the visibility and sharing of personal and intimate matters in digitally mediated situations also mobilizes the affective paradox described above. On the one hand a great amount of personal and intimate visibility is driven by the aim of being and presenting oneself as more spontaneous and authentic, to our loved ones or to our online microaudiences, as well as by the empowering pleasures of breaking with the usual embarrassment rules. On the other hand the features of these digital mediations, such as the distance, the delay, the different ways of shaping and editing our digital inscriptions, afford a greater control and management of the affective information and experiences, this affective management being one of the main reasons as well for the shifts on the non written rules of what is suitable, as they allow for a particular face-work in these sensitive situations.

CONCLUSION

The inscriptive power of ICTs, their ubiquitous presence and their ability to create affective occasions and to mediate emotional exchanges turn their practices and uses into privileged stages to put into practice a non-dualist approach to the study of emotions, accounting for the articulations, resonances and dissonances of their different aspects. Thus, the assessment of the affective bandwidth of a particular device or application has to take into account the diverse and complex situations of its uses and practices, as well as the particularities of affective information and the particularity of emotions. It is necessary to take into account the kind of affective experiences that emerged, in some cases unwillingly created by the sender's intention of saving his or her face. These experiences and situations exceed the intention and awareness of people involved in the exchanges, which raises questions about the ethical consequences of implementing devices and applications that

are able to disclose, reveal and perform emotions. Hence, affective information could be considered as a kind of ‘active information,’ borrowing Bohm’s term (Clough et al., 2007), understood as a form of physical activity, which shapes energy and matter, which is not reduced to meaning and byte. As intensities, passions, encounters and experiences digitally inscribed, present complex power dynamics involving individuals, collectives, institutions and commercial interests. Therefore, the complexity of the affective implications of mobile media uses and practices demands a revision of the categories used to assess and develop their affective role.

The transformation of embarrassment reveals dynamics of subjectivation and de-subjectivation: how ICTs are contributing to the making of contemporary subjectivities and subjections, as well as to the oblivion and loss of former modes and attachments, that is, how they are taking part in the transformation of our affective culture. The notion of affective culture provides a schema of experience and action, used by individuals to build their behavior and to make sense according to their personal history, their style and their evaluation of the situation. The biological background is socially and culturally translated in ways that can be similar but also very different from one social group to another and also from one time to another, as Elias describes for instance, how people in the Middle Ages did not know the invisible walls of affective reactions that separate our bodies. They did not experience the shame and embarrassment associated with the body and its physical functions that we know (Elias, 1982), or we used to know.

The affective turn of these last decades could be the sign of a shift in the civilizing process, as affects and bodies matters are not relegated to the private realms but configure different modes of public intimacies, in parallel to what has been happening in the sphere of commercial media, reality television or politic communication. Self-control and discipline remain under the form of mediated and re-mediated ways of emotional management. Digital practices reveal the complex current emotional work, as they are part of our sentimental education and socialization of feelings. At the same time many of these practices display the will to experience and share affective intensity controlling the risks (something that according to Elias has been provided by mimetic leisure practices from theatre, to cinema and sports). The remediation of the affective paradoxes and ambiguities gives rise to forms of disquiet surrounding these practices, which are part as well of the emotional attunement required for social life, for the sense of belonging, and for recognition, involving diverse modes of attachment and subjection: to the significant others, to our micro-audiences, to the written and non-written rules of what is appropriate.

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BIOGRAPHY

Amparo Lasén, holds a Ph.D. from the University Paris V-La Sorbonne. She is Professor of Sociology at the University Complutense de Madrid. Her research focuses on the social implications of the usages, practices and presence of ICT especially in relationship with affectivity and the configuration of contemporary subjectivities. Prior to her current position, she was the Vodafone Surrey Scholar at the DWRC of Surrey University, where she conducted cross-cultural research on mobile phone uses and practices. She has been academic visitor at the Department of Sociology of the LSE and researcher of the CEAQ (Centre d'Études de l'Actuel et du Quotidien) Paris V-La Sorbonne. A list of her publications is available at <http://ucm.academia.edu/AmparoLasén>