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affordance: opportunities, constraints, and  
emotions**

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## **Perpetual contact as a communicative affordance: opportunities, constraints and emotions**

**Abstract:** This paper draws on qualitative data collected as a part of a comparative study on children and teenagers' uses of smartphone in nine European countries to explore the meanings and emotions associated with the enhanced possibility of "full-time" contact with peers provided by smartphones. It argues that full-time access to peers - which interviewees identify as the main consequence of smartphones and instant messaging apps on their interactions with peers – is a communicative affordance, that is, a set of socially constructed opportunities and constraints that frame possibilities of action by giving rise to a diversity of communicative practices, as well as contradictory feelings among young people: intimacy, proximity, security as well as anxiety, exclusion and obligation. Understanding the perceptions and emotions around the affordance of "anywhere, anytime" accessibility, therefore, helps in untangling how communicative affordances are individually perceived but also, and more importantly, socially appropriated, negotiated, legitimised and institutionalised.

**Keywords:** children and young people, smartphones, perpetual contact, communicative affordances, emotions

### **Introduction**

The use of smartphones by children and teenagers has grown apace in the last few years (Mascheroni & Ólafsson, 2014), bringing about changes and continuities in online and mobile communication. By extending the opportunities to access already popular social media platforms such as Facebook and Twitter, and supporting new apps such as WhatsApp, Instagram and Snapchat, smartphones widen the scope of young people's communication repertoires. The range of mobile communicative practices and the type

of audiences children are now able to engage with has considerably expanded (Bertel & Stald, 2013), leading to the remediation of consolidated communicative practices such as SMS (Bertel & Ling, 2014). However, these changes are better understood in terms of amplification and continuities, rather than radical fractures<sup>1</sup>.

A strong continuity of communicative practices can be found in the primary motivation underpinning the use of mobile communication by children and young people, namely, social access to peers (Lenhart et al., 2010; Ling & Bertel, 2013). Indeed, the vast literature on mobile communication and its practices has emphasised the emergence of new modes of interaction, such as “hyper-coordination” (Ling & Yttri, 2002) and a “connected mode” (Licoppe, 2003, 2004), consisting of frequent and continuous communication exchanges, which provide a sense of “connected presence”. Among teenagers, hyper-coordination and “connected” interaction have an expressive and phatic function, serving as a way to check on the status of friendship ties. However, negative consequences of the “full-time” access to peers supported by mobile communication have also been identified, emphasising how mobile communication can become a source of tensions (Baron, 2008; Bond, 2010, 2014; Ling & Yttri, 2002; Ling, 2012). While adults express concern, especially for telecocooning (Habuchi, 2005) and the potential withdrawal of mobile phone users from face to face interactions, children themselves perceive anxiety and insecurity, for fear of missing out and failing obligations to reciprocate (Baron, 2008; Bond, 2014).

The feeling of entrapment (Hall & Baym, 2011) generated by expectations and etiquette around mobile communication appears to be enhanced by the affordances of instant messaging apps and social network sites, that notify the sender when the message has been read. Although most European children think it is true (81%) that they feel more connected to their friends thanks to smartphones, three out of four children (72%) also feel they have to be always available to family and friends since having a smartphone (Mascheroni & Ólafsson, 2014).

This paper draws on qualitative data collected as a part of a comparative study on children and teenagers' uses of smartphones in nine European countries and aims to explore the meanings and emotions associated with the enhanced possibility of a "full-time" contact with peers provided by smartphones. It argues that full-time access to peers - which interviewees identify as the main consequence of smartphones and instant messaging apps on their interactions with peers – is a communicative affordance. And that a communicative affordance must be understood as a set of socially constructed opportunities and constraints that frame possibilities of action by giving rise to a diversity of communicative practices, as well as contradictory feelings among young people: intimacy, proximity, security as well as anxiety, exclusion and obligation. Understanding the perceptions and emotions around the affordance of "anywhere, anytime" accessibility, therefore, helps in untangling how communicative affordances are individually perceived but also, and more importantly, socially appropriated, negotiated, legitimised and institutionalised.

### **"Perpetual contact" as a communicative affordance**

Recent studies on mobile communication (Schrock, 2015) and social media (boyd, 2010; Papacharissi and Easton, 2013) have seen a resurgence of interest in the notion of affordances (Gibson, 1979), as a way to balance and reconcile a constructivist approach to the social consequences of technologies – more specifically, the Social Shaping of Technology (Bijker and Law, 1992) - with the acknowledgement of a simultaneous process of technological shaping of sociality.

One of the most robust explanations of the notion of affordances - and its implications for the understanding of the interplay of the technological and the social in human interactions - is provided by Hutchby (2001a, 2001b). Hutchby calls for a new empirical perspective on technologically mediated practices that accounts simultaneously for the culturally contingent nature of technologies, and for "the constraining, as well as

enabling materiality of the technology” (Hutchby, 2001a, p. 444). Accordingly, he understands technological artefacts as shaping, without determining, the conditions for agency: different technologies have different capacities, which frame the possible meanings and uses that individuals and groups attribute to it. Looking at how technologies are made sense of and incorporated in embodied practices helps in recognising that “the significance of technology lies not in what an artefact ‘is’, not in what it specifically does, but in what it enables or affords as it mediates the relationship between its user and other individuals” (Hutchby & Moran-Ellis, 2001, p.3). Therefore, Hutchby (2001b) reminds us that, when communication technologies are considered, the functional aspect of affordances – namely the possibilities for agency it opens up – is always embedded in sets of social norms and socially legitimised practices.

Affordances are both functional and relational, enabling or constraining engagement in different ways depending on context (Hutchby, 2014). In other words, users develop culturally specific understandings of communication technologies and their communicative possibilities – on the basis of which certain media and communicative practices are perceived as more appropriate than others in certain contexts. This is complemented by the concept of “media ideologies” (Gershon, 2010) that are shaped by the materiality of the technology, thus functioning as a structure of limitations as well as opportunities, which is brought into being through use. Moreover, media ideologies are not individual, but rather social, as they inform, reproduce and negotiate the social norms regulating social interactions.

More recently, Schrock has developed a “communicative affordances framework” to the study of mobile communication, where he defines affordances as “an interaction between subjective perceptions of utility and objective qualities of the technology that alters communicative practices or habits” (Schrock, 2015, p.1232). Following Hutchby, Schrock conceptualises the empirical implications of such an approach, which encourages a shift in focus from “representations” or “effects” to “practices” and the

“symbolic meaning” of those practices (Hutchby, 2001a; Schrock, 2015). Schrock, however, is more concerned with an understanding of affordances as the articulation of an encounter between the materiality of technologies and individual perceptions.

While the term affordances was not explicitly used, early literature on mobile communication shows much contiguity with the notion of communicative affordances as developed by Hutchby. In exploring the early uses of mobile phones, Cooper (2002) conceptualised “mobility” as a three-way process involving the mobility of the user, the mobility of the device and the mobility of the content. It is the portability of mobile phones in this multi-dimensional sense that sets the conditions for individual addressability, and ubiquitous access to one another independently from time and space constraints. Mobile communication scholars agree that the “anywhere, anytime” availability afforded by mobile communication is potential, rather than deterministic: phatic communicative practices, it has been argued, “maintain the illusion of a constant connection” (Licoppe, 2003, p. 172). Similarly, Schlegoff claims that “what is perpetual here is not contact itself but the possibility of making it” (2002, p. 285). And Ribak, in her study of parents’ and children’s relationship around the mobile phone, clearly highlights how the “mobile is a tool for potential, rather than actual communication; its significance lies in its availability rather than in its actual use” (Ribak, 2009, p. 188). Even more evocative of the notion of affordances is Katz and Aakhus’ (2002) concept of “perpetual contact”, understood as a “socio-logic” that informs individual appreciations of the meaning and functions of communicative technologies, and serves as a constraint upon diverse possibilities for action in different social contexts. Perpetual contact, therefore, is defined as a communicative affordance enabled by the portability of mobile media, which is negotiated and activated by individuals and social groups.

Mobile communication studies also focused on how the communicative affordances of the mobile phone became socially embedded. For example, Ling (2012) traces the

domestication of the mobile phone and its transition from an instrumental tool to an integral, taken for granted part of our social ecology. In this process, Ling explains, the meaning of the mobile phone shifted from a “personal” to a “social mediation” technology that shapes, facilitates, but also constrains the functioning of the group and the conditions for interactions. Indeed, social mediation technologies are “legitimated artifacts and systems governed by group-based reciprocal expectations that enable, but also set conditions for, the maintenance of the social sphere” (Ling, 2012, p. 7). The normalisation of the mobile phone depends as much on its utility for users, as on its social legitimations and the reciprocal assumptions regarding its role in social interaction. Along this process, ubiquitous and perpetual accessibility to one another has become part of the reciprocal meanings and expectations associated with mobile communication: we expect our family and intimate friends to be always available by means of their mobiles, and feel we have to reciprocate by conforming to this ‘connected presence’. Therefore, these meanings and expectations are socially constructed, imbued with social rituals (Ling, 2008), and result in social norms governing the interaction between individual perceptions of utility and the functionalities of social mediation technologies: mobile interactions have become “even more integrated into the very cultures of sociability and personal connectivity” (Hutchby, 2014, p. 86). While it is up to individuals to use or not the communicative affordances of mobile communication (Schrock, 2015), opting out becomes less of an option when ‘always on’ accessibility is turned into a normative behaviour and a cultural value (Van Dijk, 2013). It is the ritual and normative dimension of perpetual contact that guides individual behaviours, and explains why “individuals experience obligations to enact relational maintenance through their mobile phones” (Hall & Baym, 2011, p. 321).

### **Emotion as a communicative affordance**

In this paper the meanings and emotions that children express around their individual communicative practices are explored to develop an understanding of connected presence and its rituals as a communicative affordance. The smartphones that many children now use daily combine the communicative affordances typical of mobile communication since the 1990s – the “perpetual contact” afforded by mobile and personal devices – with the affordances of instant messaging and social network sites. In particular children quickly appropriate and adapt messaging services and this sending and receiving of messages, Taylor and Harper (2002) postulate, is a form of ritualised “gift giving” that continuously shapes and develops the ways that children use their mobile phones. It is in these earlier discourses exploring mobile phone use (also Katz and Aakhus 2001; Licoppe 2003; Ling and Yttri 2002; Vincent 2006) that emotion, which is perhaps best situated as a “relational affordance” (Hutchby, 2014) - differing depending on context - can be seen to emerge as a factor in the social practices of mobile phone users and their symbiotic relationship with the device. The intimacy and personal feelings associated with the giving of messages mediated via social networks and smartphones also highlights the role that these devices now play in the transfer of emotions – positive and negative – between children. Vincent & Fortunati (2009) in their analysis of emotions mediated via information communication technologies emphasise this point with regard to mobile phones: “emotions that have always been part of everyday life are now embodied, and somehow synthesized in the device making it one of the main repositories for the electronic emotions that are being created, lived and re-lived via telecommunications” (Vincent & Fortunati, 2009, p.13). These emotions are not different from the normative emotions experienced in everyday life; rather, they are emotions prompted as a result of experiencing a machine in some way. Emotions in the relationship with smartphones and the content they contain is explored by Vincent (2006; 2010) and Vincent & Fortunati (2014) who show that as users become more familiar with their smartphone they become increasingly emotionally



dependent on it for staying in touch with friends and family. This is “an outcome of the continuous, prolonged and strengthening intimacy achieved through the mobile phone’s mediation of electronic emotion” (Vincent, 2010, p.160)

Among children and young people who are learning the social practices associated with smartphones there are predominantly positive emotional responses (Vincent, 2015) and it is the over use, the constant connectivity that invariably leads to negative feelings.

The changing social practices over time reflect a sense of feeling comfortable with the smartphone, an ease of use that is reflected in the phone being intertwined through many of their everyday practices.

Feelings mediated via the mobile phone are not always controlled by the user but can also be managed by their interlocutors, or those who might make contact with them. The mobile phone can represent a kind of digital leash that connects the user to less welcome third parties such as is explored by Ling (2004) and Qui (2007) in their respective studies of mobile phone use in Norway and China. Although their research refers to the parent-child relationship or forms of surveillance within society, this concept of the digital leash could also apply to the perpetual contact between peers within the age group of children. The connection is being less of surveillance and monitoring and more with regard to their being tethered to each other. Being always available via a mobile phone does present a paradox for its user who is at once freed from the constraints of having to remain close to a house phone, or internet link, but in so doing becomes available at all times and in any location (Baron, 2008; Turkle, 2008).

## **Methods**

This paper draws on qualitative interviews and focus groups collected from January to September 2014 in nine European countries (Belgium, Denmark, Germany, Ireland, Italy, Portugal, Romania, Spain and the UK) as part of a multi-method research project

aimed at understanding how children and young people experience the changing conditions of internet access and use by means of smartphones. In each country, children were sampled from at least three different schools to ensure a balanced composition of the sample in terms of type of school, area and socio-economic background. On average, six focus groups (three with girls and three with boys, with two groups for each age group of 9-10, 11-13 and 14-16 year-olds) and 12 interviews (six for each gender, with the same age distribution) were conducted in each country. Overall, there were 55 focus groups (N = 219) and 107 interviews (N = 108).

The interview and focus group schedules - that were tested during a pilot phase in Autumn 2013 - covered the following issues: perceptions and experiences around smartphones and tablets (in focus groups these were collected through an initial ice-breaking activity with post-it stickers); changes in their everyday life associated with mobile devices; specific problems (regarding communication, images, location, such as sexting or cyberbullying); parental concerns; school rules.

Drawing on a prior experience with qualitative comparative analysis (Smahel & Wright, 2014), focus groups and interviews were transcribed in national languages and analysed using a combination of inductive and theoretical thematic analysis (Braun & Clark, 2006; Fereday & Muir-Cochrane, 2008) in three steps. In the first level of coding (Rennie, Phillips, & Quartaro, 1988), researchers coded each transcript producing rich, condensed descriptions of the material in English, including information on the situation and the social context, the device (e.g., whether a smartphone, or a laptop or a shared desktop computer, etc.), the platform (Facebook, WhatsApp, gaming site, etc.), the actors involved, and any further comment the researcher deemed important for a full understanding of the interview (e.g culturally specific beliefs or practices, reference to national news, etc.). At least ten verbatim per transcription were also translated into English. To ensure reliability, the pilot focus group and interviews were coded independently by two researchers of the same national team and merged, and any

difference discussed among them. Coders were also trained during the network's face-to-face meetings. First-level codes were then thematically analysed through a second level of coding based on a semantic coding guide defined in a network meeting and developed both theoretically - drawing on the research experience developed in a prior qualitative cross-cultural project (Smahel & Wright, 2014) and on the researchers' theoretical and analytic interests - and inductively, that is, data-driven (Braun & Clarke, 2006). Each first-level code was coded into as many second-level codes it fitted into. Finally, in the third phase data were analysed and interpreted by grouping second-level codes and interviews or focus groups extracts in key themes, in order to identify not only patterns but also their meanings and implications.

## **Findings<sup>2</sup>**

The children and teenagers in the present study were enthusiastic about the unprecedented ease of communication and the variety of communication practices and channels that smartphones offer. In describing the changing communicative practices, interviewees and focus group participants identified a number of functionalities of smartphones that are relevant for their communication with peers. First, children discussed the extended availability of social media and instant messaging apps, which allow a free, continuous and intermittent flow of communication. Second, children remarked upon how mobile social networking and instant messaging facilitate communication and coordination, since all individuals in the group can simultaneously participate in the interaction. As Anuji explains, instead of addressing individually each friend through SMS, these apps support the practice of "broadcasting" a message to a larger audience for free:

*Anuj: if you had normal text, people would only message you if they need to message you. And you can't really create groups on text message so I think that's why you might message more. So if you want to tell, let's just say, about your birthday party, or something, you could instead of sending it individually, and paying a lot on the text message, on the group you could send it one time for free and everyone would know about it on the group.*

*(boy, 11-13, UK )*

Indeed, according to children, what is new in smartphones compared to mobile phones is the communicative practices afforded by mobile social networking and messaging apps, which result in a general perception of an enhanced contact with the peer group. However, the perception of “anywhere, anytime” availability of mobile communication is generated by a reciprocal logic of perpetual connectedness, rather than being actually practiced in everyday life. Indeed, it contrasts with the everyday experience of many children, whose actual communicative practices are at times limited by time and space constraints: children may be forbidden to use the smartphone in certain places and contexts (such as at school or during family meals), or restricted in their use by the lack of availability of free Wi-Fi networks, when they are not provided with a (paid for) mobile internet plan (Haddon & Vincent, 2014; Mascheroni & Ólafsson, 2014). Nonetheless, despite experiencing some restrictions on the possibilities for action opened up by messaging apps, children and teenagers understand the “availability” afforded by these apps as the main consequence of smartphones in their daily lives. In their discourses around the experience of constant connectivity, this affordance is further elaborated in association with the mobility, or portability of mobile devices: being in touch ‘anywhere, anytime’ is possible both because communication is free and smartphones are always ‘at hand’. The following quotes show how the new features of mobile communication enabled by smartphones are understood as a communicative affordance that sets certain possibilities for agency, namely a “connected mode of interaction” (Licoppe, 2003), which punctuates their daily routines:

*Alan: I talk more and I talk to a lot more people in general because the ability is there in my hands, it's much easier to... I have Facebook and they have Facebook and I have my phone and it's quite easy to communicate.*

*(boy, 14-16, UK)*

*Joachim: it's smaller so you always have it with you. (...) if the possibility is there, you'll just use it more.*

*(boys, 15-16, Belgium)*

*Andrea: we write on iMessage, on Facebook. And in class on Instagram we send sometimes pictures to each other and things like that (...) So we keep in touch all the time.*

*(girls, 14-16, Denmark)*

Smartphones and instant messaging apps are credited for making communication with friends “super easy” as Emil, a teenage boy from Denmark, puts it. Many interviewees also believe they are more “sociable” since they had a smartphone, as Elien, a 12-year-old Belgian girl stated when describing the consequences of smartphones in her peer group. The potentially full-time access to friends that smartphones afford helps young people extend their face-to-face interactions beyond the contexts of physical proximity, by creating a 24/7 communicative bubble through the definition of small communicative rituals (Ling, 2008; Taylor and Harper 2002). In the following excerpt, Massimo and Michele discuss how the domestication of WhatsApp led to a reconfiguration of the meaning and uses of Facebook. WhatsApp has now become the locus for ritual interaction and mediated humour, that reinforces in-group cohesion:

*Massimo: now that we are all on WhatsApp, we communicate on WhatsApp more, we have the class group and, unless we have some important communications to do, that are posted on the Facebook group so that everyone sees it, we text on WhatsApp (...)*

*Michele: as far as I know, even though I don't have a profile on Facebook, Facebook is used more for official announcements, such as the class assembly, or things that people can comment on. (...)*

*Massimo: yeah, mainly WhatsApp is used for... strengthening relationships within the class, I mean, you make jokes on WhatsApp. While on Facebook, it is for more important announcements*  
*(boys, 14-16, Italy)*

The communication rituals described by the interviewees and focus group participants sustain a “connected mode of interaction” whose meaning is essentially phatic (Licoppe, 2003, 2004): indeed, it primarily serves as a confirmation of friendship ties and the establishment of an in-group (Ling, 2008), so that the content exchanged may be irrelevant or secondary. According to many interviewees, smartphones and apps have enabled children to improve their relationship with peers, by reinforcing group belonging and strengthening friendship. The added dimension of the electronic emotions (Vincent & Fortunati, 2009) imbued in the messages between friends, peers in social media further reinforces the communicative affordances of the smartphone. This is shown in the following excerpts, which highlight the emotional relevance of “perpetual contact” in children’s everyday life:

*Ionela: You can communicate much better, and to the questions if I communicate more with friends with the smartphone, yes; I started befriending them more because of WhatsApp, going into groups and finding more things about them.*  
*(girl, 10, Romania)*

*Hannah: I feel more connected with people, as I have freedom to talk to them whenever I can.*  
*(girl, 11-13, Ireland)*

*Arianna: my favourite device is the smartphone because... because there I have my friends’ telephone numbers, I have all my stuff, maybe also WhatsApp messages, I don’t know... We exchange messages, me and my (girl)friends, that we want to keep, for example they sent me a message with “you are a special friend” and this kind of things, I like to keep them.*  
*(girl, 12 Italy)*

Another dimension of the emotional attachment to smartphones is that it has become a repository of personal information and memories, as Arianna's comment shows. This is consistent with prior research that showed how teens also value smartphones as repositories of personal significant messages, whereby SMS and other text messages are reconfigured into collectable items (Kasesniemi & Rautiainen, 2002) in which friendship ties are embodied.

Overall, the findings are supportive of gender and age differences in mobile communication: the meanings and emotions associated with smartphones and mobile communicative practices are especially emphasised by girls and are differently characterised according to age. Younger girls praise emancipation from their parents and the freedom to communicate with their peers away from parental surveillance (Ling & Haddon, 2008). Teenage girls and boys, instead, emphasise especially the opportunity to strengthen friendship ties and build new relationships afforded by constant availability. These findings also highlight how the children and young people adapt and shape their communicative practices as they grow older and encounter new experiences in life, some of which are mediated via their mobile devices. Their ability to negotiate the various devices and apps is constantly changing as they mature and understand more about how to manage and appropriate the affordances that enable continuous interaction among their friendship groups and peers.

Among children of all age groups, perpetual contact is thus firmly rooted in the micro-rituals of everyday communication, resulting in social expectations and rules guiding interpersonal interaction. In other words, perpetual accessibility to one another by means of mobile communication has become more important with smartphones, children argue, and it now represents a reciprocally assumed part of peer interaction (Ling, 2012).

While “to be connected with the rest of the world” (Giulia, 11-13, Italy) is generally recognised as a beneficial outcome of smartphones, children admit being vulnerable to the imperative to be “always on”. So, although some children report being “annoyed” by constant availability to peers - for example, Jens, 15, from Belgium, laments “what bothers me is that you’re always busy, and that you have no rest” - they usually conform to the social pressure to be always connected. The anxieties of wanting to be in perpetual contact but not always being able to achieve this, such as due to the mobile phone being banned from use, or simply the volume of messages being too great to manage, has been reported by children.

*Sarah: when we were younger, and we had those old phones It was like, you could easily forget it at home, but now, where you can use the social media, now it's really important!*  
(girls, 11-13, Denmark)

*Sara: 'At school? I use it anyway. I have been caught using my phone and it has been confiscated, but [laughing] it is stronger than me I can't help but replying to messages.'*  
(girl, 15, Italy)

*Elena: I do so many things with my phone!*

*Interviewer: do you use it much?*

*Elena: a lot, it is always with me, it's a pity we are not allowed to bring it at school*

*Federica: yes, indeed*

*Elena: and when I go back home there are a lot of messages and I feel bad*  
(girl, 9, Italy)

The normative character of “availability” emerges especially when this affordance is constrained by technical or social limitations: failing to reciprocate in real time is associated with feelings of anxiety and insecurity. Children are aware that temporary disconnection is negatively sanctioned and troublesome: problematic consequences vary



in intensity, from finding a long list of unread messages to scroll on WhatsApp or Snapchat, to being excluded from face-to-face interactions due to the inability of catching up with the conversation:

*Eliza: I follow so many people on Twitter that I can't actually physically read everything that they say, so what I do... I probably go onto my mentions because my mentions are full of the people that I want to see their tweets and I... then I just go through that and look at the people's tweets I want to see, instead of reading everyone's, so I probably just go through my Twitter but it takes so long.*

*(girls, 14-16, UK)*

*Giuliana: and when you go online you find a lot of messages, they might be interesting but you don't bother to read them all and then the next day in class they talk and you don't know what they are talking about.*

*(girls, 11-13, Italy)*

It is clear that when children cannot access their phones and keep up with the conversations, they feel they are missing out on interaction. Not having a smartphone, though, has even more serious consequences. Giorgia tells how her life has improved now that she has a smartphone and access to mobile social networking: she no longer feels out of the loop. By contrast, Kai equates his 'unavailability' to peers by means of messaging apps with a sense of exclusion and loneliness:

*Giorgia: it is much better now because it strengthens relationships. I used to feel lonely before, because everyone else had a smartphone and they kept in touch, they had Facebook and I didn't.*

*(girl, 16, Italy)*

*Kai: Because all the others have a smartphone, I think that I'm more unavailable now because nobody calls on the home phone but everybody is writing WhatsApp messages.*

*(boy, 13-14, Germany )*

The examples above indicate that the normative mobile maintenance expectations (Hall & Baym, 2011) and etiquette - whereby one should be always accessible and reply in real time – are associated with anxiety and insecurity. These negative feelings appear to be amplified by new features of mobile social networking and instant messaging. Knowing that the sender is notified when the message has been received and read causes anxiety as well as misunderstandings in relationships with friends. The feeling of compulsion and discomfort at the same time is expressed by these Italian and Romanian teenagers in the following examples:

*Bianca: And it is easier to get angry because you cannot really understand other people's reactions. For example, on Facebook it displays if it has been read, to inform you the receiver has seen the message. But it may happen she doesn't reply immediately, so you feel hurt*

*Gaia: Yes, it could just be because you are taking a shower, so you saw it quickly before entering the shower... "why you haven't replied?"*

*Bianca: you are always compelled to reply, because I fear my friends might get angry because I haven't seen...*

*(girls, 14-16, Italy)*

*Interviewer: So it's not nice no to answer?*

*Andrea: Yes, in my opinion, well if you really have problems or if you're away and cannot talk, yes, nobody says anything. But when you get messages and you see and you're not in the mood to talk (...) so, it's a very stupid idea that they write and can see that I saw the message and this is the most annoying: to write someone and to get "seen at.." and not to be answered.*

*(girl, 15, Romania)*

*Roberto: a downside of WhatsApp (is that), for example, I was arranging a meeting with a friend to do homework together and to him WhatsApp said that I had seen the message with the double tick - I don't know how to call it, the "message seen" icon - while instead I only... I had seen the incoming messages but I was out so I didn't have time to check, I was doing something else, so I closed the notifications and I didn't even read the messages. That maybe... Like, "hey, you could at least answer!"*

*(boy, 14-16, Italy)*

Being notified that a message has been received and read on WhatsApp or Facebook, and waiting for an answer, is even more troublesome in the case of romantic relationships, as in the excerpts below. The use of mobile communication to initiate romantic relationships has been well documented in the literature on teenagers and mobile phones (see for example Oksman & Turtiainen, 2004). Indeed, texting has long been one of the favourite modes of flirting with potential romantic partners, allowing for greater control on the context and content of communication than face-to-face interaction. New technological features of instant messaging, however, are at least partially reconfiguring perpetual contact as a communicative affordance, insofar as the norms of “anywhere, anytime” accessibility are perceived as more binding, and lack of real time communication is framed as an intentional failure to reciprocate.

*Michele: I'd rather prefer someone sends me a harsh reply than being ignored, because when one is ignored, one feels really...*

*Massimo: then you spend hours making hypotheses on that and later 'sorry, I didn't have time to answer before'*

*(boys, 14-16, Italy)*

*Giorgia: on Facebook, when someone chats with a special person, such as a boyfriend or someone she has a crush on, maybe, this person was engaged in the conversation but suddenly had to do something else, like he had opened the message but afterwards he went away... Then the girl starts making thousands of questions and she worries... I think that before this feature existed, that says when someone has seen your message, things were better.*

*(girl, 16, Italy)*

Indeed, children are developing ways to re-work the boundaries and the norms of perpetual accessibility and avoid the constraints of real-time communicative exchanges.

Many interviewees, for example, report leaving the phone in another room while they are doing homework, in order to avoid distractions and control the compulsion to a connected mode of interaction:

*Stefania: I check my smartphone after lunch and then I go to do my homework, I leave it there, in the dining room, so that I get not distracted by it. I started using this strategy because when I received messages I had the instinct to immediately go to see them, while if I leave it in the dining room maybe I do not even hear the sound of incoming messages and I keep studying.*  
(girl, 13 year, Italy)

All these examples suggest that mobile social networking and instant messaging are currently being domesticated and that children are still working out the rules governing reciprocal availability and the texting etiquette.

### **Concluding Remarks**

By exploring the smartphone communicative practices experienced among some European children and young people, this paper has showed how “perpetual contact”, as a communicative affordance of mobile communication, has evolved and how the affordances of different platforms/services – e.g. of WhatsApp versus SMS – open up diverse communicative possibilities, which shape distinctive communicative practices as well as different norms covering use, social expectations and emotions around smartphones. Full-time instantaneous availability is grounded in technological affordances as well as in peer pressure (Van Dijck, 2013) thereby acquiring a normative character, as illustrated with examples of the portability of the smartphones, that are key enablers of intimate and emotional contact, of assuaging anxiety in moments of stress, but which also frame the obligations to be always contactable and to avoid exclusions from social arrangements. This is evident in how younger users frame the possibility of full-time access to peers by means of a smartphone as a communicative affordance that

enables and at the same time constrains agency. However, obligatory availability can be negotiated or even resisted, as some tactical practices enacted by young people show. This is where the dialectic between structure and agency that the notion of affordances implies becomes evident.

We have also argued that, against understandings of affordances as individual relationships with technologies and their perceived utility, examining emotions helps highlight the social and normative character of communicative affordances: indeed, both the notion of communicative affordance and electronic emotions emphasise the mutual shaping between users and technological artefacts, social norms governing interactions and capabilities of technologies.

More specifically, by looking at the emotional dimension of the individual-technology interaction – that is looking at an individual’s emotions around the content and the relationships mediated by the technology – we have learned more about how communicative affordances are, socially appropriated, negotiated, resisted and embedded in communicative rituals. While on the one hand enhanced opportunities for communication are associated with positive feelings of proximity, intimacy, and belonging, on the other, the constraining nature of social expectations regarding “anywhere, anytime” accessibility and obligations to reciprocate is embodied in feelings of anxiety and insecurity. Negative emotions associated with “perpetual contact” as a communicative affordance show how, beyond the encounter between subjective perceptions and communicative possibilities, affordances are relational, incorporated into the social ecology, and assume a normative, constraining character that cannot be simply dismissed by virtue of individual negotiations. Children and young people’s emotional relationship with the communicative affordances of smartphones, however, is not a static phenomenon: rather it changes over time, with increased ability to negotiate personal accessibility and the affordances of new apps, and to distance themselves by both positive and negative emotions which are part of growing up. As teenagers gain

independence and autonomy, the feeling of missing out and being isolated becomes less compelling, suggesting that communicative affordances are grounded in different social expectations and norms.

Finally, the analysis of specific communicative practices has helped in understanding the communicative affordances of smartphones in terms of continuities rather than radical or revolutionary changes. Perpetual contact is nothing new; rather, it has always been a communicative affordance of mobile communication but one which is being enhanced and amplified by smartphones through instant messaging and social networking apps. It is precisely because smartphones are currently being domesticated that the normative and constraining dimension of perpetual contact is being worked out through the expression of contrasting emotions. Future studies may observe different practices, norms and emotions around “always on” accessibility as a communicative affordance as the notion of perpetual contact is further shaped and reshaped by users. The findings presented in this paper, therefore, are not generalizable, being contingent on an early stage in the domestication of smartphones among children and teenagers. A further limitation of this paper concerns the comparison across countries: while it draws on data collected in nine European countries, this paper does not assume cross-cultural comparisons as its primary theoretical goal (Kohn, 1989). Therefore, cultural similarities or differences were not emphasised throughout the presentation of the findings. Indeed, exploring how communicative affordances are experienced in different cultural contexts would reinforce our assumption that communicative affordances are better understood as socially constructed, and not exclusively as interactions between individuals and technologies. This paper, however, is primarily aimed at claiming the importance of broadening the notion of communicative affordances by looking at emotions as a way to recognise their social and normative character.

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<sup>1</sup> The findings presented in this paper refer to a research on smartphones. The terms “mobile phones” and “smartphones” are interchangeable in the literature cited.

<sup>2</sup> The findings across all nine countries had many similarities with regard to perpetual contact. In this paper we have illustrated our findings with examples from all the countries involved in the study; specific cross-cultural and country comparisons are not explored here and can be found in the reports of the Net Children Go Mobile project (Haddon & Vincent, 2014; Mascheroni & Ólafsson, 2014).