Tantalisingly Close

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4. Mobile communication dreams

It just makes sense. The more ways you have to connect with the people who matter to you, the easier it is to stay close. (T-Mobile 2007)

Today, gathering from industry and user accounts, the utopian desire for improved communication is fulfilled to the fullest yet by mobile communication devices. Great expectations for what they can do to make our lives better than ever before – palpably visible in advertisements and press releases but also disguised in how users motivate their wireless communication behaviour – invariably rely on the familiar adage that new technologies will finally solve old problems. The devices have become extremely widespread in a very short time, and are represented as the seemingly logical, natural, and inevitable outcomes of the ideology of improved communication: unlike any other medium before, they let their users act as both senders and receivers of information, wherever they are, immersing them in a vast network of interconnectedness. While we should remain sceptical of such rhetoric, mobile communication devices, even accounting for all the diversity and complexity in their use, do have, by their sheer presence in numbers, a generalising effect on how communication is to be understood at the beginning of the twenty-first century: their pervasiveness has rendered them ordinary, and, in a sense, invisible; they become our environment as they seamlessly blend into almost every social activity imaginable, extending, as Castells et al. (2007: 126) write, ‘the beat of life into ubiquitous interactivity’.

The present chapter zooms in on this most recent branch of communication technologies in order to apprehend how and where idealised ideas of improved communication find fertile ground in today’s mobile communication’s discourses. It will do so by building upon the main themes covered in the previous chapters – ideas of progress and utopia that are projected upon idealised conceptions of communication, which in turn express themselves materially in the evolution of media technologies – and by formulating an answer to the question to what extent the many manifestations of mobile communication technologies and their popular apprehension, reception, and societal justification employ discourses that harbour forceful fantasies of a progressive path towards ultimate communication.

First, I will pick up the project of uncovering myths of improved communication in the evolution of communications technologies, and continue to trace those myths within the various developmental strands of mobile wireless communication up to the present day. As with the accounts of media developments described
in chapter 3, the focus will not so much be on giving a dry enumeration of technological innovations, but more on how the environmental factors, which facilitated the evolutionary developments of mobile wireless communication, were shadowed and oriented by myths of ideal communication. This will be a short history of the framework within which beckoning and onrushing futures set the agendas for creating mobile communication devices. As we will see here, myths serve to strategically create the impression that there is little difference between what developers of mobile communication technologies consider to be the right (and therefore profitable) road to travel, and what the general public are offered as the latest and ‘naturally’ improved technologies to accommodate their communication needs.

Next, the discussion will shift to analysing the four characteristics that are typically ascribed to wireless communication technologies by advertisements and user accounts, in order to gauge the extent to which idealised ideas of improved communication are articulated in present-day discourses of mobile communication. These four characteristics are comprised of the ability to facilitate ubiquitous connectivity, fluid sociability, real-time relief of anxiety, and omniscience and collectiveness through ever-present knowledge. I will explicate how both the fulfilment and the unintended consequences of the longing for a communication sublime can be located in the various deployments and appropriations of these characteristics, and subsequently pinpoint the paradoxes that become articulated in the incessant drive for communication improvement. As will become clear, because of their ruthless and pervasive connectivity, mobile communication devices make us painfully aware, perhaps more so than other communication media, that the actual achievement of ideal communication is both a blessing and a curse.

The final section of this chapter will show that the mobile communication condition that we live in today is itself, of course, not exempt from the notion that there are still communication problems to be solved. By discussing two of the recent trends that are positioned as representing the next important phase in the ongoing search for improvement in the development of mobile communication technology, namely location awareness and the creation of an ‘Internet of Things’, I argue that myths of ideal communication continue to orient our thinking about new communication technologies, and are invariably translated from older forms of myths so to have them work as solutions for present-day communication problems. Mobile communication technologies are here to stay, but they are definitely not the final answer.
Making communication mobile

Dick: I'll be at 362-9296 for a while; then I'll be at 648-0024 for about fifteen minutes; then I'll be at 752-0420; and then I'll be home, at 621-4598.

Yeah, right George, bye-bye.

Linda: There's a phone booth on the corner. You want me to run downstairs and get the number? You'll be passing it.

(Play it again, Sam, Woody Allen 1972)

The development of mobile communication technologies is one that cannot be isolated from historical, social, economic, and political contexts, nor from the dreams of perfected communication that pervaded those contexts. Moreover, the lesson learned so far is that the evolution of electronically mediated communication knows a myriad of interconnected branches, some still extending themselves and others long buried under the weight of history. Within these branches we can locate numerous human and non-human actors, which at some points bred the most fantastic but stillborn offspring and at other points merged to give life to contraptions that hit the sweet spot of contemporary communication desires. The roughly 150 years that span between the commercial deployment of the electrical telegraph and that of the Internet saw many such failures and successes, and the previous chapter showed that all of these relate in various ways to notions of wanting to remove obstacles that stand in the way of perfectly communicating from afar, of making us omnipresent and omniscient. Within this vast forest of old, new, living, and dead media, we should therefore also be able to find the areas that harbour the earliest technological roots of personal wireless communication.

Envisioning personal radio communication

While fantasies of direct, telepathic-like communication are certainly not confined to the last few centuries, it was not until the mastering of electricity and the development of electronically operated communication technologies that the first feasible ideas were put forward regarding how actual wireless person-to-person communication might work. Within the lengthy history of experimenting with the electromagnetic spectrum and designing devices that could exploit its characteristics, the start of the twentieth century marks a time when two powerful media constellations had started to approach each other. The first of these two, comprised of telephonic dispositifs, had already begun to present itself as a fierce competitor of the telegraphic constellation. The telephone noticeably made its way onto the evolving telecommunications scene in the 1880s and 1890s, and had gained a healthy momentum. Its ease of use, coupled to a simple but smart rental
scheme pioneered by the Bell Telephone Company and continued by AT&T under the helm of Theodore Vail, quickly captured the attention of those who needed swift communication and could afford it (Aronson 1977: 27). At first, subscribers were predominantly rich people who worked in professional and commercial industries, but with the expiration of Bell’s key patents in 1893 and 1894, many small telephone start-ups in the United States began to offer telephonic services at greatly reduced rates, making them available to the general public as well (Fischer 1992: 42-44). In 1914, around ten per cent of the United States population had a telephone; in other developed countries, the figures ranged from 6.5 per cent in Canada to 1.7 per cent in Great Britain (Kingsbury 1915: 530-531). Although far from being the near-global medium it is today, for many at that time the telephone was a well-known device, symbolising the next significant step in the direction of the presence of an uninhibited ‘freedom of expression’ of mind (Boettinger 1977: 203).

The second media constellation that signalled a change in late-nineteenth century’s telecommunication discourses presented itself in the form of radiographic experiments and devices. Still in a phase where the understanding of the wireless transmission of electromagnetic signals was rudimentary, these new imaginative conceptions of bridging space by technological means were poised to fully interact with the dominant telephonic dispositifs that had been established. As evident from the William Crookes’ article discussed earlier, in 1892, wireless point-to-point communication seemed to be on the brink of invention, and the prediction of its onset was to be repeated many times, in spite of the fact that later on wireless signalling revealed itself to be much better suited for broadcasting purposes. In a wonderful collection of forecasts brought together by Thomas H. White, we find, for instance, that in 1901 a commentator in the London Spectator saw that ‘[s]ome day men and women will carry wireless telephones as today we carry a card case or camera’, and that in 1902 the English journal of electromagnetics The Electrician reported

that ‘a number of scientists scattered all over the civilised world are eagerly seeking the solution to the problem of wireless telephony’, and although so far there had been only limited success, ‘A future generation may conceivably accomplish as much in wireless telephony as is dreamed of to-day by visionaries’. (White 2007)

The persistence of this belief was closely linked to the idea that all that was needed was new technologies; while the concrete practices of wireless signalling at the beginning of the twentieth century were far removed from the dreams of visionaries, further development of radio components like the crystal detector and vacuum-tube transmitters continued to improve radio’s potential and therefore fuel the public and scientific imagination. As Pool et al. revealed from a 1910
article by Herbert Casson, one particular inventive notion was that police work would benefit greatly if ‘each individual [would] have a number by which he could be reached telephonically wherever he might be’ (Pool et al. 1977: 138). The wording closely resonates with the familiar desire for omnipresence and as a result omniscience through improved communication, something that seemed to be virtually present merely by cleverly combining available technology. Over the years, little would change in this expression of this desire; White writes for example that in 1919, in the U.S. War Department annual report,

Signal Corps head Major General George O. Squier talked of ‘the day which I believe is not far distant, when we can reach the ultimate goal so that any individual anywhere on earth will be able to communicate directly by the spoken word to any other individual wherever he may be’. (White 2007, emphasis added)

The same words, the same wish; out of the ideational entanglement of the telephonic and radiographic constellations came many similar predictions that echoed hopes for ever-more ubiquitous communication. As is so often the case, however, the day that the ultimate goal was to be reached would always be further away than projected. While many dreamed of portable radiophones at the end of the nineteenth century, the reality was that, for a long time, communication on the move was only possible if one had a large enough sea or land vehicle to carry the heavy radio equipment.

**Vehicular mobility**

The first successful commercial deployment of wireless communication was, in fact, by its very nature mobile, as Marconi had attracted the British, Italian, and American navies as well as the maritime insurance company Lloyd’s as main customers of his wireless telegraph systems. He competed with wired telegraph networks on land as well, but once he had begun to adapt his technology to the maritime environment in 1897, there was an increased demand for ships to be fitted with radio equipment (Dunlap 1937: 76-83). After the advantages of having a reliable means to communicate over long distances had become evident in naval conditions, Marconi sought to expand the potential market for mobile communication to other areas. In 1901, the same year he managed to send a radio signal across the Atlantic for the first time, he equipped a steam-powered wagon with a transmitter, receiver, and electric batteries so that ‘communication [could] be maintained while the vehicle [was] travelling’ (Western Electrician, July 27, 1901: 51 cited in White 2005). There was no immediate and direct financial gain made from this experiment, but an important connection had been established: this was the world’s first car-based communications system, and as such it is a typical
example of how the branches in the evolution of communication media, guided by experimental or entrepreneurial motivations, continuously find new areas to grow towards.

Around the same time, and emphasising the argument that while the technological means to communicate evolve perpetually they have a tendency to converge towards similar ‘good tricks’, we see another car-bound experiment in mobile communication, albeit one without radiographic technologies: in 1910, Lars Magnus Ericsson (the Swedish manufacturer of telegraphs and telephones) and his wife Hilda built a telephone system into their car, and by physically attaching that system to the wires of telephone lines using two long grappling poles, they were able to stop along the road and make a call wherever they could make a connection (Agar 2003: 8-9). Despite the similarities, there was a significant difference between this car-bound system and that of Marconi, however, because even though the technique of ‘hooking up’ a telephone to existent wires provided ample communication advantages – it had also already been successfully employed by armies in battle and by telephone companies to test their lines – it only provided mobility between fixed communication; it was the radio-based system of Marconi that made mediated communication itself truly mobile. Within the general perception of what mobile communication was or could become, for a long time technical affordances as well as prevailing social necessities would retain that link between automobiles and radio equipment.

The supervening social necessities for cars that offered mobile communication capabilities first appeared in the form of a desire to improve law enforcement. One optimistic forecast that had been made during the fixed telephone network’s development was that crimes would be solved more easily, because many more people would be able to quickly report them to the police. This brought forward the need to have police officers on call as much as possible while on the beat. With the technology at hand to instantly contact anyone with access to a radio receiver tuned at a specific frequency, the practical solution to the problem of the need for increased accessibility of the police became straightforward. From 1921 to 1928, several police officers, all radio amateurs, developed a mobile radio communications system for the Detroit Michigan Police Department, which they fitted in their cars (IEEE 2007). Initially, this system, which in the early phases relied on the use of Morse code but later provided fully voice-based communication, was one-way only, so that alerted police officers had to stop their cars and use a fixed line to call in (Gow & Smith 2006: 23). It proved to be very successful nonetheless, and more police departments quickly followed suit. This technological momentum was given an extra impulse after the Galvin Manufacturing Corporation (GMC) produced a two-way radio system under the brand name ‘Motorola’, which became the land-mobile radio of choice for many government agencies and emergency services during the 1930s (Goggin 2006: 25). The subsequent deployment in the Second World War of the GMC-manufactured AM portable
two-way ‘Handie-Talkie’ in 1940 and the FM portable two-way ‘Walkie-Talkie’ in 1943 showed the immense and often strategic usefulness of being able to communicate back and forth without the restrictive need for a fixed connection, and paved the way for larger-scale commercial experiments with car-based radio telephony after the war.

These post-war experiments were not without their technical difficulties, which were of course discursively framed in terms of challenges that had to be overcome: the problem of requiring wires may have been put out of the way, but there were other obstacles to uninhibited communication that loomed at the horizon. Up to the mid-1940s, radio communication had in effect relied on a rather closed system: you could only talk to someone who used proper radio equipment and was tuned in on the right frequency. Wireless calls to a fixed phone (or vice versa) could not be made, and the frequency range in which radio communication worked was limited. Although AT&T and GMC both tried to address all of these limitations, resulting in the creation of the Mobile Telephone Service in 1946, radio channels in the available radio spectrum were sparse and suffered heavily from interference; in addition, the service was costly, the equipment was heavy, and conversations could only take place using a push-to-talk procedure (Gow & Smith 2006: 23-25).

What made things still more difficult was that, despite all these drawbacks, the demand for car telephones in the two decades following the Second World War was overwhelming; many people who wanted to experience mobile communication were placed on a long waiting list (Agar 2003: 36-37). Especially for those who were often on the road, the potential communicative affordances of mobile telephony far outweighed its technical imperfections. This pressing urge to make use of mobilised communication manifested itself in many countries, and for a variety of reasons. In 1949 in the Netherlands, the government-operated Postal, Telegraph, and Telephone agency created a national public mobile network that used centralised base stations to establish contact between any telephone and ‘mobilofoons’ (Meulstee 2007). This network was predominantly used by taxi services and transport companies, and incidentally proved to be of great importance for the coordination of emergency services during the 1953 North Sea flood (Museum voor Communicatie 2006). In Sweden, Ericsson built the world’s first fully automatic Mobile Telephone A system in 1956, which attracted the patronage of many lawyers, doctors, and people living and working in rural areas (Agar 2003: 49; Ericsson 2006). Thus, although it was used mostly in specialised fields and its costs were much too high for the majority of people to own one, the personal mobile communication device exerted a powerful attraction on the collective imagination, and had a large appeal for many who saw connectedness as essential for their everyday functioning.

As had been the case with the fixed telephone, the growing popularity of mobile communication increasingly put pressure on its infrastructure, creating a
dire need for further innovation. It was Bell Laboratories, which since 1925 had represented the institutionalised search for improvements in communication, that was instrumental in providing the necessary developments and laying the foundations for the ubiquitous existence of present-day mobile telephones (Goggin 2006: 26). One of those important developments was the invention of the transistor in 1948. It made the miniaturisation of radio devices possible, and as such transformed radio telephones into much less bulky devices. The second innovation was the idea for a cellular network, in which multiple and interconnected low-powered base stations organised in a decentralised hexagonal grid would replace the few centralised high-powered radio towers, thus freeing up frequencies. Conceived in 1947, it would take more than twenty years before the cellular system would become operational because of two reasons: first, the American Federal Communications Commission (FCC) refused for a long time to allocate the requested frequency spectrum, and second, the technology that was needed to manage call handovers and frequency switching was only developed in the late 1960s (Farley 2006b, 2006c). Still, the cellular system proved to be key to the mobile system’s success.

Leaving the car behind

In the late 1960s, while AT&T focused on using cellular technology to improve car telephony, Motorola (which had changed its name from Galvin Manufacturing Corporation in 1947) aimed to extend the mobile telephony paradigm beyond the car. To Martin Cooper, the general manager of Motorola’s Communications Systems Division at the time, the advantages of a truly portable telephone were unambiguously clear: ‘When you park your car and leave, you can’t use your mobile [car phone] but you can take your portable with you’ (Motorola 2007). Cooper thus described what he called the ‘original dream’ of mobile wireless communication in well-known terms: to be able to use a communication device wherever and whenever, and not have it be bound by any physical object other than the human body itself (Charny 2003). Notably, Cooper reframed the ‘reverse salients’ of his project, the very concrete and historically contextualised technical problems that were his daily concern, as standing between him and realising an apparently long-held dream of unlimited communication. His determination to realise this dream vividly reflects how myths of improved communication resonate through Western culture, and how they find fertile ground with many people, including — especially — those who have a say in the development of new communication technologies.3 Cooper took free rein and, within five years after the FCC’s 1968 declaration that if cellular technology proved technically feasible it would be allocated a large number of frequencies, he and his team had designed and built a prototype of the DynaTAC, a brick-like portable phone weighing almost one kilogram. It would take another ten years and many FCC hearings
before Motorola’s first commercial portable cell phone, the DynaTAC 8000X, was approved and made available in 1983.

Cooper was not the only one who had the dream of creating boundless mobile communication; the topos flitted through many a telecommunication designer’s brain, and this can be seen in the rapid advances made elsewhere in the world. While the cellular concept and the necessary technologies to make cell phones work were developed in the United States during the late 1960s and early 1970s, their commercial deployment was hampered by legislative restrictions and high costs to such a degree that other countries implemented successful cellular networks a few years before the Americans did. In Japan, the Nippon Telephone and Telegraph company established a cellular service in 1979 (Goggin 2006: 29). Then there was the Nordisk Mobil Telefoni system, which was put into use in the early 1980s in Sweden, Denmark, Norway, and Finland (but which, curiously enough, premiered in Saudi Arabia) (Ericsson 2007). The rest of Europe followed closely after the Advanced Mobile Phone System had been inaugurated in the United States in 1983, with the United Kingdom installing its Total Access Mobile System, Italy its Radio Telephono Mobile Integrato, France its RadioCom 2000, Germany its C-Netz, and the Netherlands their second generation Auto Telefoon (ATF-2) network (Gow & Smith 2006: 46; Groen 2006; Ling 2004: 8-9). By the end of the 1980s, mobile telephony had gained a momentum comparable to that of fixed telephony in the 1910s: the infrastructure had undergone a major change in order to service more subscribers (like automated exchanges had done for wired telephone networks decades earlier), and although not everybody had the financial means to actually own a mobile telephone, the portable technology had firmly established itself in the public awareness as the next generation in the evolution of telecommunications.

Global expansion

Still, the ideal of universal mobile telephone service that Cooper and others had dreamed of was far from being fulfilled. It was the increasing amount of waiting potential customers that made this abundantly clear, emphasising that the idea of personal wireless communication had a broad level of appeal. Despite the considerable costs, the demand for mobile telephony turned out to be much greater than expected, and soon after the first generation of cellular networks had started operating, ‘predictions of unlimited capacity [...] proved grossly optimistic’ (Fox 1990: 45). Another factor that hampered universal service was that, because all the different cellular systems were incompatible with each other, it was practically impossible to use a phone abroad; only countries that shared a similar system could provide roaming access. Especially in Europe, where both Enlightened unification ideals and a drive towards global economic competitiveness determined much of the political and industrial agendas of the Union’s member countries,
this incompatibility was a thorn in the side of many; therefore, the project to ‘build one European cellular phone system [...] would be a major material means of realising the dream [of unification]’ (Agar 2003: 58). The subsequent development and implementation of the Global System for Mobile Communications (GSM) in 1991 was completely in line with the European commitment to this dream: it was adopted as a pan-European standard, lifting cellular systems from the first (analogue) to the second (digital) generation and freeing up spectrum in order to manage the rapidly increasing amount of subscribers (Ling 2004: 9). Concurrently, in the Americas and parts of Asia, newly developed second-generation digital cellular telephone standards started to employ Code Division Multiple Access protocols, and in Japan the switch was made to the Personal Digital Cellular standard (Gow & Smith 2006: 48-49). All in all, at the beginning of the 1990s in many countries around the world, important technological improvements had been made to accommodate for a lot more mobile telephone users than the first generation of cellular systems could have managed.

However self-evident this process of mobilisation might seem, it should be carefully noted that, even though a lingering desire for media that could establish personal wireless contact had existed for a long time, it was only when particular contributing factors and actors came together in the media environment of the early 1990s that the mobile communication condition as we now know it began to take concrete shape. When it did, we see that, from the mid-1990s onwards, a rapid increase in the amount of mobile telephone subscriptions took place. Although the transition from an analogue to a digital system was instrumental for this to happen, it was not the only reason why mobile telephones grew in popularity. With further technological developments and components becoming smaller and cheaper, mobile telephones had transformed from clumsy heavy bricks to elegant and even fashionable portable objects, making owning and using one much less of a hassle – or an embarrassment. No company was more prominent in the early days of the production and marketing of such small ‘personal trusted devices’ than Finland-based Nokia, and it had understood very well that the desire to be constantly in touch was not just to be found among people doing business. Recognising the demands of regular consumers was the first step and, accordingly, designing mobile telephones the next. Nokia’s ensuing segmentation of the mass market into a broad range of lifestyle-related niche markets proved to be enormously successful, and paved the way for the unprecedented adoption of mobile telephones amongst a huge range of customers (Steinbock 2005: 167).

Today, mobile communication devices are virtually ubiquitous. Their ability to potentially connect anywhere, anytime, to anyone or anything in the informational network, combined with an ongoing emphasis of the individual as the nexus of communication and entertainment, has sculpted the devices into vital cultural artefacts, providing many more functions than just placing calls. A signif-
icant proportion of devices nowadays supports text messaging, playing games, taking pictures or video clips, and listening to radio or digitally stored music; the more advanced models enable activities such as surfing the Internet, reading emails or other text documents, managing all kinds of social media hubs, using Global Positioning System (GPS) applications for location-based services, and even paying money. Any social activity may now involve using one or more of these mobile functions at some point, suffusing our understanding of communication with notions of immediacy, ubiquity, intimacy, reassurance, and knowledge gathering, all potentially available at the press of a few (virtual) buttons.

In the evolution of media technologies, mobile communication devices constitute its more recent branches, and their ‘magical fetish’ (McGuigan 2005: 46) engenders dreams of improved communication very much like previous generations of communication technologies did. So much so, in fact, that for some scholars it is tempting to describe the rise of the mobile society as not only revolutionary, but also almost as a coming home to the ‘true’ balance of communication which is supposedly hardwired in humankind. Mobile wireless communication technologies, in this view, constitute the ultimate means by which the longing for improved communication can be fulfilled today. However, such optimism, while partly justified by the sheer speed with which mobile communication devices have proliferated themselves and have helped many to improve their businesses or social lives, is not entirely warranted, as it underestimates the inevitable problematic consequences of the search for ideal communication. Just as with earlier attempts – or even more so because of their unprecedented ubiquity and pervasive nature – mobile communication devices will stress the dark side of all that an achievement of perfected communication entails.

**Living the paradoxical dream**

*Mystery Man*: We’ve met before, haven’t we.

*Fred Madison*: I don’t think so. Where was it you think we met?

*Mystery Man*: At your house. Don’t you remember?

*Fred Madison*: No. No, I don’t. Are you sure?

*Mystery Man*: Of course. As a matter of fact, I’m there right now.

*Fred Madison*: What do you mean? You’re where right now?

*Mystery Man*: At your house.

*Fred Madison*: That’s fucking crazy, man.

[Mystery Man hands Fred a mobile telephone]

*Mystery Man*: Call me. Dial your number. Go ahead.

[Fred dials the number and the Mystery Man answers]
Mystery Man: [over the phone] I told you I was here.

Fred Madison: [amused] How’d you do that?

Mystery Man: Ask me.

[Fred remembers the anonymous video tapes]

Fred Madison: [angrily into the phone] How did you get inside my house?

Mystery Man: [over the phone] You invited me. It is not my custom to go where I am not wanted.

Fred Madison: [into the phone] Who are you?

[Both Mystery Men laugh mechanically]

Mystery Man: [over the phone] Give me back my phone.

[Fred gives the phone back]

Mystery Man: It’s been a pleasure talking to you.

(LOST HIGHWAY, David Lynch 1997)

The important question that confronts us at this point is how exactly the discourses and infrastructures that co-construct current-day mobile communication dispositifs sustain idealised ideas of communication. How are these ideas expressed, to what extent do they influence everyday experiences of mobile communication? In one rather straightforward sense, the speed alone with which the adoption of mobile technology takes place suggests that there is a significant overlap between what people consider to be their natural communication needs and what mobile communication media have to offer. A quick glance at the breakneck-paced integration of mobile communication devices into everyday life could easily give the impression that the age-old desire to bridge distances and instantaneously communicate with anyone and anywhere, which has expressed itself countless times in predictions and glorifications of new media, is now for many people closer to fulfilment than ever before. Without truly realising it, we might already have arrived at the future of communication – as we have always seemed to be doing, as victims of our wilful amnesia.

But such an explanation would obscure the different reasons why people in various demographic categories adopt mobile communication technologies. These adoption strategies in their turn depend on a broad range of cultural, social, economic, and political settings, which also cannot be ignored as influencing factors in the construction and propagation of representations of idealised communication. So the question becomes this: while looking at analyses and discourses of everyday practices of mobile communication, do we indeed predominantly find notions that we have established a true communications utopia? Or is such a utopia effectively out of reach, despite the ubiquitous presence of the best candidates so far to satisfy the basic technological requirements for it to exist? Mobile communication devices may indeed facilitate the kinds of contact that perfectly fit idealised conceptions of the zenith of communication, but do we
experience them as such? In other words, what are the kinks in the ideals, where is the uncanniness, what are the communication paradoxes in the mobile age?

To answer these questions, analytical cuts will be made along four characteristics of current-day mobile communication devices that are typically presented as their strongest selling points, which are identified in their promises to bring ubiquitous connectivity, fluid sociability, real-time relief of anxiety, and omniscience and collectiveness through ever-present knowledge. In each of these analytical cuts, the focus is first on how notions of improved communication manifest themselves, and then on the ways these various expressions and expectations of idealised communication run into the paradoxes of utopian and universalising thinking. In order to gauge user experiences from a micro-scale perspective, these analyses will engage with illustrative examples of research that empirically measured sociological and psychological ramifications of the use of mobile communication devices.

**Ubiquitous connectivity**

The obvious and single most defining characteristic of mobile wireless communication technology, one that precedes and co-defines its other specific features, is that it renders space largely irrelevant as a variable in constituting mediated contact. There is no need to be in a certain fixed location in order to connect to someone or something; given a well-diffused infrastructure that supports the sending, carrying, and receiving of radio signals, and provided that one is enveloped in one of the hertzian bubbles thereby created, a mobile call or a wireless Internet connection can be made anywhere. Increasingly, these bubbles are covering large parts of the Earth, from urban regions to deserted plains, mountain tops and out at sea. Due to contributing factors such as the standardisation of communication protocols, the ease of construction of basic technological frameworks, the portability of devices, the intuitive use of mobile telephones, and the high social and cultural value of personal communication devices, wireless services steadfastly have become globally pervasive indeed. What is significant about this process is that the supporting infrastructure is often rendered almost invisible, in a conscious attempt to create and uphold the illusion that the wireless connection is ‘just there’, to be invoked at will to magically synchronise different space and time coordinates. Similar to the early seventeenth-century fantasies of magnetised compass needles that would move in communicative rapport wherever they were, a certain sense of – and need for – telepathic immediacy pervades modern wireless communication technologies: just turn on the mobile device, and a connection will be guaranteed to exist almost instantly.

With their near omnipresence, mobile communication devices facilitate the further compression of geographical space into what Manuel Castells calls the ‘space of flows’, a concept he developed in *The rise of the network society* (1996), and...
which he defined in later work as ‘the material organization of simultaneous social interaction at a distance by networking communication, with the technological support of telecommunications, interactive communication systems, and fast transportation technologies’ (Castells et al. 2007: 171). In the space of flows, people, goods, and information are in a constant state of flux, moving between physical locations while being part of a dynamic network that is linked together through the use of communication technologies. It is connections, not places, that constitute the networks of the space of flows, redefining space ‘into the space of communication’ (ibid.: 178). What Castells et al. rightly observe is that this process of emphasising communication over location is accelerated even more today. Because mobile communication devices radically alter the long-lasting relationship between communication nodes and fixed locations, spatial vectors in the space of flows become increasingly heterogeneous, and consequently simultaneous social interaction at a distance turns into a pervasive activity that can be engaged in anywhere, at any time. The space of flows does not completely lose all sense of place (people continue to use communication technologies to make arrangements to meet each other, for instance), but places have become less significant in the establishment of communication now that the connections that are required to set up communication have been uncoupled from physical locations. Many may call the devices ‘mobile’ telephones, and ubiquitous connectivity does indeed support mobility, but it is the omnipresent availability of connection nodes that actually defines current-day wireless communication.

What follows is that, when distances and the need for location-specific contact points are removed as obstacles hindering what is perceived as the ultimate goal of unchecked communication, we become more and more immersed in what social psychologist Kenneth Gergen calls the ‘relational net’, in which everyone and everything can potentially link up (Gergen 2003: 111). Having a wireless communication device like a mobile telephone at one’s disposal implies having access to ever-present, real-time communication channels, and thus to the means to engage in dialogue or to disseminate information whenever and wherever one wants. A mobile telephone therefore provides a very strong psychological ‘fix’ by supplying an abundance of communicative choice, the freedom to electronically connect and mediate knowledge, opinions, and desires; it is an apparatus of opportunity, a potential-rich portal. As such, it resonates with positively connoted notions similar to those found in the lure of the new and in the ideas of improving communication: as long as there is the chance that things can be turned around or improved, preferably by purposefully creating or using enabling technologies, there is the necessary illusion that we have a say in our destiny. Communicating has always been a fundamental social activity in human existence, and the idealised drive to improve the means to do so posits itself as an integral part of media evolution, so it should be no surprise to see that discourses
of wireless communication technologies exhibit very familiar ideographs such as ‘opportunity’, ‘hope’, and ‘progress’.

Some empirical examples might serve to clarify the above observations. The tendency to depict mobile telephones as powerful devices that possess an unlimited connective potential, and the habit of conflating this capacity for connectivity with the idea that it best answers our longings for the ability to create a better future, are, for instance, reflected by the strong emotional and cognitive investments that people make in wireless communication technologies. In many countries they are called ‘hand phones’, or their names refer to the fact that communication is ‘always on’ and can always be carried along (Thompson 2005: 17-19; Townsend 2002: 68-69). The most dramatically expressed urge to attribute magical powers to the devices is found in Israel, where a mobile telephone is called pelephone (after the name of Israel’s first cellular communications company) which literally means ‘wonder-phone’ (Thompson 2005: 21). One can gather from these naming conventions that mobile telephones are considered essential extensions of the body. Moreover, mobile telephones and their invisible but potentially present connections have now become so intimately integrated into our being that many people experience feelings of panic when they find they have not brought their mobile telephone with them, or think it is lost (Vincent 2003: 220; Baron 2011). The severance of the hertzian umbilical cord is felt like an amputation that many prefer to avoid. To illustrate this further, during the short-lived offer in 2000 by several mobile telephone operators to provide free calls in the evenings and on weekends, some people even chose to maintain a constant connection through their mobile telephones, and listened to each other sleeping (Licoppe 2003: 177).

From a socio-psychological standpoint, mobile communication devices can be said to be experienced as the latest candidates to gratify the wish to come closer to communication utopia. They do so, however, not only because ‘improved communication’ has long been portrayed and perceived by producers and consumers as the one thing that can actually propel us forward into a utopian future, but also because the very idea of what constitutes ‘improved communication’ has co-evolved with media evolution. Chapter 3 showed that idealised ideas of communication have been expressed in a multitude of ways in a plethora of media dispositifs, but in the specific form of small, light, portable, and fashionable mobile communication devices, these ideals have now taken on the shape of the desire to always be in control of all available information flows, to be a perpetually connected node in an information-rich network. Mobile communication devices thus not only represent the most recent bid in a long line of recurring and similar attempts to improve communication, they also show how material and cultural aspects of technology co-determine dominant contemporary ideologies of communication media.
But what does this mean for the understanding of what ‘communication’ is? Has it indeed been improved? What are the unintended consequences of increased connectedness, what are the kinks in the ideals? At first, a perpetually connected state seems to be a perfect point of departure for establishing and managing all kinds of successful communication situations, and thus for reaching the ideal goal of a common understanding. Indeed, all of the scenarios for improving communication discussed in chapter 2 rely on the presence of channels – the essential prerequisites for any type of communication to exist – and, as the line of thinking goes, what would be a better improvement than making sure that those channels are available and operative at all times? But a closer inspection of what is at hand reveals that merely increasing the opportunities to connect does not suffice, and paradoxically might not even help in bringing people closer together in a utopian fashion. Through an analysis of several mobile telephone advertisements, press releases, and news reports, and by contrasting those discourses with ideas of communication found in works by Martin Heidegger, Jürgen Habermas, and George Myerson (2001), for instance, comes to the conclusion that what he calls the process of ‘mobilisation’ is predominantly geared towards just making contact, and not particularly towards creating a shared understanding. Although he is prone to overestimating the significance of press mumbo-jumbo by taking its seductive scenarios too literally as accurate representations of how people see and use their mobile telephones in everyday life, Myerson does pinpoint the industry’s unidirectional sense of what constitutes ideal communication. He shows that, despite the fact that more and more people have the opportunity to engage in meaningful conversations, mobile telephones are marketed as personal communication centres with which one can satisfy individualistic wants, simply by making ‘basic contacts’ (Myerson 2001: 27). He argues that by the very ease with which mobile telephones can facilitate contact, the focus – in an almost Shannon-like sense – has shifted away from the content towards the channel of communication, a process that in his view degenerates our notion of what communication is. By reducing the idea of communication to the mere act of making contact, Myerson maintains, we actually lose touch with each other instead of sharing our sense of being (ibid.: 58).

And indeed, there are research findings that can be interpreted as supporting Myerson’s claim that in the mobile age ‘communication’ is quickly supplanted by ‘making contact’. Studies have shown that people generally take less time calling on mobile telephones than they do on fixed phones (Licoppe 2003: 175), think of asynchronous text messaging as ‘quicker and more convenient than voice telephony’ (Ling 2004: 150), and sometimes lock themselves in ‘tele-cocones’ from which they only keep in touch with their most intimate friends, refraining from communicating with the outside world (Ito, Okabe & Matsuda 2005: 10-11). While some of these phenomena can be explained as user strategies aimed at managing billing systems and keeping costs low, the suggestion remains that mobile tele-

140 TANTALISINGLY CLOSE
phony and its infrastructure offer affordances that primarily invite what Christian Licoppe calls a “‘connected’ practice of interaction” instead of a “‘conversational’ practice” (Licoppe 2003: 174, 183). The ‘anywhere, anytime’ paradigm so much pervades interaction in everyday life, Licoppe found, that users prefer to think of their mobile communication practices mostly as intuitive whenever-you-feel-like events, which do not have to adhere to conventional communication habits and routines. As a result, mobile messages – especially text messages – are frequent but short, and often primarily serve to acknowledge the phatic dimension of communication, the connection that people share (ibid.: 180-181).

While such short communicative gestures are important elements in the shaping and maintenance of what can be called a ‘performative value’ in social relationships (Green 2003: 207), they do add to swelling flows of information, messages, and data, all of which affirm one’s connectedness up to a highly redundant level. If always being connected is what brings pure communication a step closer, it is also what foregrounds the communication paradox, and forces us to realise that pure communication is relentless in its intrusive nature. Research has shown that when the times and places at which people can be contacted for whatever reason are extended to all possible environments, and those contacts become more frequent, a tension arises between the desire and expectancy for immediate and unlimited access to others on the one hand, and the need to filter out and restrict incoming access requests in increasingly variable circumstances on the other: the presence of a perpetual connection pressures users of mobile communication devices into managing all kinds of complicated communication schemes (Sherry & Salvador 2002: 114-115), into employing inventive ways to cope with awkward social situations caused by disruptive incoming calls (Ling 2004: 123-143), and even into being deprived of much needed sleep when they are kept awake at night by calls or text messages (Turrettini 2007). Judging from marketing predictions for next-generation wireless devices, such problems are not about to go away soon; the ‘always on, real-time access’ adage dominates the wireless industry’s mentality towards the future of communication, reiterating along the way the wish of Licklider, Otlet, and countless others before them, for omnipresence and omniscience.12

Discourses of wireless communication technologies, then, reflect how the compression of space through ubiquitous connection nodes is of constitutive importance in the transformation of our understanding of communication. Across a wide range of demographic compositions, many social activities that used to rely on physical proximity or on the pre-arranged coordination of interaction are now reshaped into ad-hoc patterns of de-spatialised and heterogeneous contacts. Some have argued that the ongoing ‘mediatisation’ of the world blurs our understanding of social space and related activities to such an extent that we are left with ‘no sense of place’ (Meyrowitz 1985), or become entangled in the ‘perpetual present’ of a ‘glocalised’ world in which both global and local events

4. MOBILE COMMUNICATION DREAMS
and activities merely exist by virtue of their potential to be immediately interconnected (Virilio 1997: 129-145). The horrifying endpoint of this trip towards ever-more connectedness, the argument goes, is one where everything collapses into a singular flow of being, much like the Borg Collective in the Star Trek universe experiences everything all at once. In such a scenario, communication in its common sense ceases to exist; there will be no ‘other’ to relate to.\textsuperscript{13}

The fact that such generalised outlooks on the negative effects of the loss of relational awareness can be countered by observations that mobile communication devices restore communal feelings previously eroded by mass media like radio and television (Gergen 2002), and that they do not by definition homogenise family members – let alone people from different cultures – in their communicative behaviour (Castells et al. 2007: 74-75), shows that mobile communication devices exhibit all the hallmarks of the dominant topos. In part oriented by idealised ideas of communication, new media appear to bring us closer to ultimate connectedness, but while doing so they trigger a wide range of ambiguous uses, appropriations, and behaviours. With the shift towards more connectedness, we thus experience faster and more often than before that the desire for pure communication brings us both pleasure and discomfort. As Michael Arnold asserts, the mobile telephone is Janus-faced; it is part of a socio-technical system that is ‘not reducible to a direction or valence tipped with a single arrowhead, but better understood as a conflation of tangential implications, at least some of which can be read as ironically and paradoxically self-contradicting phenomena’ (Arnold 2003: 234). Because of mobile telephony, the paradox hiding in the desire for ideal communication becomes more articulated than ever.

\textit{Fluid sociability}

The observations on the strong significance of the connectivity aspect of mobile communication devices might suggest that people value this attribute the most, and, when asked, will mention it as the principal agent to eliminate communication problems arising from physical remoteness. Yet, while discourses of mobile communication devices do indeed underline how their ability to transcend space and time is profoundly transforming our perception of communication, there are suggestions that people do not necessarily experience the functioning of those devices in such bloated terms in everyday life. According to communication scholar Valerie Frissen (2000), the mobile industry’s conception of information and communication technologies (ICTs) as the tools par excellence to solve communication problems is not immediately reflected in how people talk and think about those technologies. Frissen stresses that most ICTs are taken for granted or seen as double-edged swords, and therefore are not often spontaneously mentioned as possible solutions for communication problems resulting from time
Verifying and adding to Frissen’s empirical research on the role of ICTs in households, Mark Aakhus (2003) concurs that there is a mismatch between the industry’s representations of improved communication and the ways in which actual uses of communication technologies are experienced. Indeed, despite the notion that a mobile telephone can provide more personal connectedness than any other medium, it is rather a stretch of the imagination to think of someone literally proclaiming that she uses a mobile telephone because it is able to solve all known communication problems. To explain the existence of such mismatches, Aakhus proposes to reframe common perspectives on communication and its problems, and to do so in two steps. The first step is to recognise that the ‘pregnant image of “perpetual contact”’ – which Aakhus acknowledges as ‘a long-standing idealization of communication’ – has a strong influence on the design, use, and thus affordances of ICTs, and therefore will continue to push increased connectedness as an ideal form of communication (Aakhus 2003: 38). In other words, user perceptions of how well ICTs can help solve communication problems can be expected to change over time as those problems become more and more articulated in terms of inadequate or faulty connections. The second step is to understand that the use of mediated communication should not solely be interpreted as a means to virtually transport to another place, but also as part of a dialectical exercise to ‘resolve the competing desires and expectations to be separate or to be together’ (ibid.: 40). In short, mobile telephone practices in everyday life are about solving communication problems not so much by substituting face-to-face meetings, but more by constantly reconfiguring one’s connectedness in the network of communication flows.

Taking Aakhus’ proposed perspective on communication as a guideline, user accounts of reconfigurations of connectedness can provide a deeper understanding of how people seek to exploit the range of communicative affordances of mobile communication devices, and subsequently of how they experience what are supposed to be idealised ideas of communication sparked by the desire for perpetual contact. To expand on this, there is one particularly poignant theme that runs through such user accounts, a theme that underscores the conclusion drawn previously that mobile telephones increase one’s connectedness without necessarily diminishing face-to-face meetings. This is the theme of social coordination, or rather that what Richard Ling and Birgitte Yttri (2002) distinguish as a combination of ‘micro- and hyper-coordination’. Micro-coordination, according to Ling and Yttri, is the type of nuanced instrumental coordination typical of a significant part of mobile telephone use: trips that have already started can be redirected, people can call or text to say they will be late, and meetings can be scheduled at a rather loosely defined time or location, only to become more definite when those who want to meet call each other while they are on their way.
Hyper-coordination brings an expressive layer to this instrumental use, both in the form of social and emotional communication (chatting, gossiping), and in the form of mobile etiquettes telling where mobile telephones should not be used or which models are in fashion (ibid.: 140). Both types are specifically about how to manage increasingly connected social networks: micro-coordination in a logistical way that makes full use of enhanced communicative availability, and hyper-coordination in a cultural way that establishes the mobile telephone as today’s nec plus ultra means to create, maintain, and express social bonds and values. In user accounts of both types, elements of ideas of fulfilment through improved communication seep through voiced expectations and desires.

First examining micro-coordination, Ling and Yttri find for instance that in many comments about the motives for using mobile telephones a strong need for connectedness is conveyed, with the goal of making instrumental communication proceed as smoothly as possible. As one informant of an interviewed group summed up reasons for contacting her partner: ‘It is if somebody is late, it can be if we need to buy something, if there is something important that he needs to bring home, if he needs to call somebody or if he has been home and has to give me a message. It is not like “Hi, I am doing fine, etc.” It is something that we need’ (ibid.: 145). This instrumental approach to mobile telephony is widespread, if not constitutive. Ling and Yttri retrieved their data mainly from interviewing Norwegian teens, but similar attitudes towards the importance of being connected for instrumental reasons have already been registered in early social analyses of the adoption of mobile telephones (see Kopomaa 2000) and have been identified as largely age-indifferent and cross-cultural phenomena (Castells et al. 2007; Leonardi, Leonardi & Hudson 2006). In such conversations, the emphasis in communication does not lie so much on reaching mutual understanding through dialogue, but more on orchestrating each other’s movements and positions in the space of flows to the point where they ultimately overlap and merge. This is only possible, however, if permanent reachability and availability is guaranteed and is incorporated in the ideology of mobile communication. As another informant assessed his need for increased connectedness: ‘It is practical to be available because you do not miss anything. It is also practical that others are available; at any rate it is irritating not to be able to reach people when you want to reach them and get them involved in something. It is very irritating’ (Ling & Yttri 2002: 151).

Echoing the diagnosis of the paradigm of networked communication in chapter 2, the main motivation here for using mobile communication devices lies in the assumption that if there are more opportunities to connect there will be an improvement in how we arrange social interactions, and thus in how social groups function as a whole. Of course, this assumption only holds when there is an agreement on how social interactions should actually be arranged, but in the
mythical mobile vision – availability solves everything, together is good – the mere possibility to contact anyone from anywhere is enough to suggest that such problems can easily be dealt with, simply by making another call or sending another text message. In the informants’ justifications for using mobile telephones we see that communication is not so much actually improved, but it is presented as such, upholding the myth that the devices have indeed made communication better.

In hyper-coordination, the value of being connected is less related to efficient planning or dealing with practical issues, and more to achieving a certain status and maintaining intimate social bonds. Such communicative activities are about sharing experiences and confirming personal links, and can take the form of gossipping, catching up on each other’s adventures, or exchanging symbolic gifts (Johnsen 2003). Now, these practices have been around for a long time, but the ubiquitous connectivity that the mobile telephone promises to deliver represents a new and particularly potent means to establish one’s identity and earn a meaningful place in the social hierarchy of family members and friends. In a cross-cultural study done by Scott Campbell (2007), results showed that people find that through mobile telephones group connections are enhanced, conversations gain in intimacy, and there are more opportunities for emancipatory praxis. One informant in the Ling and Yttri study illustrates this last point: ‘If I am not home and if I didn’t have a mobile telephone then my parents would be clear about all the people I hang out with [...]. When you have a mobile telephone then you have a private answering machine and a private telephone’ (Ling & Yttri 2002: 153).

The mobile telephone thus acts as a device that appears to liberate expressive communication, largely because it makes opportunities for mediated dialogue and dissemination available to demographic groups that did not readily enjoy that privilege before the age of mobile communication devices, and because those people use mobile communication as a way to actively establish and manage their own social position in relation to others. Here, the ideal of communication as a free, uninhibited practice resonates quite strongly, and in a literal sense as well, of course, as expressive communication is also liberated from its physical attributes. Expressing oneself as a unique individual now increasingly takes place in the virtual media space of mobile conversations, where social differences tend to be less visible or obtrusive. Ling and Yttri find that many mobile telephone users think that the most important aspect of coordination activities is that they can be performed without the involved parties knowing their respective locations, which adds a highly egalitarian and personalised quality to already existing patterns of communication (ibid: 143). Compared to the fixed telephone, the mobile telephone offers far more direct and individualised links to other people, properties that have quickly turned the device into the primary locus where one’s collection of social connections resides. In the words of another informant: ‘I think that the mobile telephone is most important in relation to my friendship network because I have the memory full of phone numbers and that is only mobile numbers. I
could not get in touch with my friends at their home phones' (ibid.: 152). Being in touch and expressing that connected status is what matters in hyper-coordination. Because mobile telephony is perceived as extending access to others to virtually infinite dimensions, the thought of being perpetually connected in the symbolically charged mobile network gives an increased existential significance to relational ties. As Gergen put it: ‘The Enlightenment paean to individualism, “I think therefore I am” is replaced with “I am linked therefore I am”’ (Gergen 2003: 111).

But, as in all necessary fictions, there are distortions in the image of communication utopia; increased social connectedness comes with some unintended consequences. The fact that mere connectivity has come to engulf present-day imagery of communication has a compelling effect on our relational self, changing the perception of what it means to co-exist and communicate with others. The people we interact with most – those who reside in our more intimate social circles, like family members, friends, and colleagues – are now always only a phone call or text message away. As Gergen aptly has diagnosed this social condition, we find ourselves continuously in a state of ‘absent presence’: physically absent, but electronically at hand (Gergen 2002). While the arrangement of absent presence offers a psychologically reassuring feeling of closeness, perpetual connectedness does not necessarily guarantee reaching a global coming together; Gergen notes that because communication with absent present others takes place via readily available channels, and therefore does not require a lot of effort or time in setting up, it tends to become simpler, shorter, and distributed among several fragmented micro-communities (Gergen 2003: 106-107). In addition, when people are inclined to enclose themselves in connections to their absent present social network, they exhibit diminished concern for those outside of their communicative bubble (ibid.: 109).

Thus, while more and more people gain increased opportunities to connect to each other, there are reasons to believe that they tend to use mobile communication devices predominantly to maintain already existing connections, and do not necessarily employ them to expand their social network (De Gournay & Smoreda 2003). Newly acquainted people might not necessarily become new mobile connections, either because contacts are fleeting or because they do not wish to be added to one’s group of existing connections. Moreover, adds Myerson, the dominant mobile imagery in advertisements and press releases even enforces the idea that the maintenance of those existing connections is more about fulfilling personal desires than it is about getting to know each other better. He states that by continuously touting the growing amount of mobile telephone users while at the same time stressing that communication is something that you personally can control, a paradox is created: ‘On the one hand, we have a language of scale; on the other hand, we have the separate individual seeking goals’ (Myerson 2001: 20-21). Even more so than the fixed telephone, a mobile telephone is part of a highly
intricate, global communication network, all the while being a personal, individualised communication technology that favours personal, individualised contact.\textsuperscript{15} All the necessary (but mostly technological) conditions for a completely interconnected world may be in place, but a realisation of a grand togetherness is not automatically in the cards.

What is noticeable as the mobile network grows, of course, is that mediated communication is brought out more into the open, which presents us with new scenarios for experiencing being-with-others and strengthens the notion that anyone carrying a mobile communication device can, potentially, become part of anyone else’s technology-mediated network. The drawback of the invasion of the public by the private, however, is that mobile communication behaviour in public spaces often invades and disturbs social events and face-to-face conversations with what is perceived as trivial and redundant chitchat or gossip. Now, gossip is the basic social glue with which humans build and maintain social bonds, and mobile telephones are very apt at facilitating it anywhere and round-the-clock (Fox 2001), but when experienced intrusively and only one-sidedly it tends to aggravate companions, bystanders, and eavesdroppers, causing them to feel disempowered (Plant 2001: 31) or convinced that communication in the mobile age has become tawdry (Palen, Salzman & Youngs 2000: 207). This strained intermingling of public (outside) space with private (inside) space is what psychologist Kathleen Cumiskey (2005) calls the paradox of techno-intimacy: to ourselves, our mobile telephone is a highly convenient personal item and our own mobile communication behaviour is perfectly acceptable, but we tend not to appreciate the same behaviour and attitude towards the valuation of mobile communication in others. In this sense, techno-intimacy, the ambivalent relationship between the desire to be connected and know all on the one hand and the need to stand apart from the multitude on the other, is itself a typical exponent of the paradox of idealised communication: an achieved complete togetherness will necessarily entail the loss of individuality, and mobile telephony will continue to stress this phenomenon.

\textit{Real-time relief of anxiety}

If we perceive mobile telephones to be personal devices full of communicative potential that, through their capability to transgress space and time, can maintain and strengthen bonds with primary social group members and make coordination activities more ad-hoc and prominent, one of the following observations must be that the psychological ‘fix’ attached to wireless communication behaviour heavily relies on the involvement of feelings of reassurance. Providing relief is the perfect medicine for those that desire to be free from the anxieties that necessary fictions of progress can produce, and the mobile telephone promises to do exactly that when it comes to dealing with the high expectations that stem
from the hope that communication will be improved. For many, the emotional immediacy of the device has registered itself as an indispensable part of their everyday life, like the aura of a talisman worn for good luck and protection. The ability to ‘just call’ or ‘just text’ and receive a confirmation of an appointment, an answer to a question, a promise of help, or an acknowledgement of an intimate relationship, preferably as quickly as possible or at least within socially acceptable time limits, makes for a very appealing advertisement premise, as well as for a credible and legitimate motivation to own a mobile telephone.

And indeed, research has shown that a need for security, safety, and reassurance is high on the list of initial reasons why people decide to buy mobile telephones, either for themselves or for their children or other loved ones. In a cross-cultural field study undertaken in Berlin, San Francisco, Shanghai, and Tokyo, it was found that mobile telephones were, alongside keys and money, ‘considered essential irrespective of culture or gender’ for ‘survival in the modern urban world’ (Chipchase et al. 2005). In a 1999 qualitative survey of 36 focus groups in six European countries, Richard Ling reports,

respondents were asked to what degree they agreed or disagreed with the statement ‘The mobile telephone is useful in an emergency.’ We found that approximately 82% of the respondents were in complete agreement. There was no other attitudinal indicator with regard to mobile telephony that had such an extreme score. (Ling 2004: 37)

Similar results were obtained from studies in the United States and Australia (ibid.: 38). In yet another study in the United States, safety and security were identified as forming a common, broad category of motivations, which were ‘often associated with car-related safety or for unknown situations that might arise’ (Palen, Salzman & Youngs 2000: 204). It should not come as a surprise to see the car mentioned here; much as was the case with telephones made mobile by installing them into cars, the modern day mobile telephone is perceived as an ideal means to travel and still remain in touch with the outside world, offering the comfort of knowing that when something goes wrong, help is always at hand.

The human fear of calamities and disasters evidently provides a sound reason why feelings of security and safety play a significant role in the adoption of wireless communication technologies. The many modern folk stories that tell of amazing rescue missions that involve the use of mobile telephones are adamant examples of how strong the desire is to stress that increased connectedness is a ‘good trick’. Idealised ideas of communication thrive on compelling anecdotes that allegedly prove that progress has been made, and arguably nothing provides more conclusive evidence than accounts of lives saved or loved ones protected thanks to new communication technologies. So, we read in The Guardian that two British climbers, caught in a blizzard on a Swiss mountain, texted five friends,
one of whom received the message in London at 5 am and immediately notified the rescue services in Geneva. After having waited another 36 hours because the conditions were too severe for rescue teams to pick them up, the two climbers were finally saved (Allison 2003). Similar stories tell of people having become lost in a pass, shipwrecked on a boat off the coast of Indonesia, or stranded in the outback of Australia, who were all able to alert friends or family through their mobile telephones and consequently receive life-saving help (Turrettini 2004). In the same vein, when in desolated urban environments people find themselves in threatening situations or feel they are intimidated by the presence of strangers, mobile telephones can sometimes offer a sense of protection just by their powerful symbolism of connectedness (Ling 2004: 44-45). Such stories thus readily feed myths of improved communication: without the new mobile communication technologies, lives would have been severely impaired, or even lost.

However, increased security through these technologies can only be guaranteed if people are willing to sacrifice some or even all control over when they can and should be reached, and by whom. Forceful evidence of this highly charged problem created by the need to relieve anxiety can be found in one of the more common social relationships where reassurance plays an important role, namely that between parents and adolescent children. On the one hand, the mobile telephone offers parents the ability to let their children discover the world on their own, with the added safety of knowing that the teenagers can always call in case of an emergency. As one Norwegian mother in a group interview acknowledges:

I have a 17 year old and the worst thing I know is when she goes downtown. I am so afraid but I just have to accept this you know. But it helps that she has a mobile telephone because she can call if something happens. It is not to control my daughter that she should take her mobile when she goes out, but it is, [...] ‘If something happens, call home and we will come immediately!’ you know. (Ling & Helmersen 2000: 14)

Here we see the familiar themes of safety and emergency closely associated with the mobile telephone, emphasising its function as a communicative lifeline that can be used at any time and place. In this sense, it shows its appeal as an idealised medium: it is the ever-present ‘materialiser’ of fulfilment of hope, hope that everything is and will remain fine. Yet, on the other hand, even though we hear the mother say that she does not want to control her daughter, notions of surveillance and accountability are exactly what will follow from a heightened absent presence of others. When one’s whereabouts and activities are continuously under potential scrutiny, the mobile telephone becomes a mobile leash, exerting a strong influence over its carrier. In their adolescent quest for independence and in response to over-concerned parents, as sociologist Nicola Green has found, teenagers often develop ‘parent management strategies’ with which they...
regulate their reachability (Green 2002: 39). Some say they had not heard the
device ringing, others automatically redirect their parents’ calls to voice mail, and
there are those that just turn off their mobile telephone when they go out, and say
that their battery was dead.18

While Green notes that what exactly constitutes surveillance and accountability
in mobile relationships is contextually based, and that the dominant association
of these concepts with state-controlled law enforcement does not do justice to the
new ways in which individuals gather and share information, what should be
regarded as most important in her analysis is her contention that the proliferation
of wireless communication technologies has ‘normalised’ the activity of checking
up on others (ibid.: 33). Through mobile telephones, Green writes, individuals
‘engage in routine monitoring of themselves and each other [...]’, and assume
that others are self-regulating and accountable for their use of devices in both co-
present and tele-present contexts’ (ibid.: 43). Thus, everyday notions of what it
means to feel reassured increasingly come to rely on knowing what others are up
to, because the technological means to gain that knowledge are at one’s disposal
at all times. As a result, questions of privacy become more manifest.19 As sociolo-
gist James Rule contends, compared to older mass media systems, today’s infra-
structures of perpetual contact inherently generate more personalised
information available to large institutions, corporations, and groups of individ-
uals, making a future world of ‘total surveillance’ a conceivable reality (Rule
2002: 247). Even though, like Green, Rule does not want to attach a specific value
connotation to the term ‘surveillance’, he does point out that we should be cau-
tious not to easily dismiss the dangers of this outlook, or think that we can always
escape observation by simply turning off our connections when we want to (ibid.:
248). In the mobile age, perpetual contact becomes the norm, and participating
without it difficult indeed.

These observations of ambivalence in mobile reassurance technologies high-
light the pitfall of the desire for unlimited communication: the more opportu-
nities are created to connect and communicate, the more the struggle will be to
hold on to established boundaries between the private and the public, between
what can be known, should be known, and needs to be known. Mobile commu-
nication devices may be able to function as symbolic crowbars, breaking open
social patterns of communicative behaviour, but they can only do so at the
expense of disclosing a lot more information than people might care to consider.
What is more, even if the aforementioned boundaries would blur to such an
extent that more data would become freely available than otherwise possible,
there would still remain the nagging uncertainty whether that retrieved informa-
tion is truly enough for one to be relieved of all anxiety. In fact, by seeking reas-
surance through radical connectedness, another type of anxiety is created, one
that stems from simultaneously being connected to someone far away and know-
ing that that distance cannot be bridged physically. This spatial discrepancy may
not be so problematic when a call is made for trivial reasons, but when related to an emergency, the state of being distant but present can instill overwhelming feelings of isolation and powerlessness. A fickle balance between fear and relief manifests itself in the continuous search for reassurance; when Henrietta Thompson, for example, states in *Phone book* that ‘[mobile] phones offer the best peace of mind it is possible to get’, she does so in the context of Israel’s continuous preparedness for terrorist attacks, where ‘[with] the fear of [terrorism] always present, the need to communicate is paramount’, and ‘people need to be able to check-up on their loved ones on short notice’ (Thompson 2005: 55).

So, not only does the longing for perpetual contact create problems with privacy issues, it also multiplies instances of what we could denote as ‘terrifying closeness’, moments where mobile communication enables people to be connected in extreme emotional circumstances while being physically apart. The torment of such ‘intense immediacy’, as James E. Katz (2006: 104) calls it, becomes adamantly clear in situations of life and death, because, while wanting to let loved ones know they are on the mind of a dying person is an understandable human emotion, to think that mobile telephones merely extend the possibility to do so is to woefully misapprehend the highly disturbing perception of experiencing remote deaths. Imagine, for instance, the unimaginable conversation between the stranded mountaineer and his wife, whom he had called from somewhere on Mount Everest to say he was going to die (Cusk 2001). Or think of those other, highly profiled accounts of mobile calls in which Eros met Thanatos, made during and after the terrorist attacks on the World Trade Center in New York on 11 September 2001. People in the hijacked planes and those trapped inside the stricken towers called family members to tell them that they loved them, sometimes right up to the moment when they died. After the towers had collapsed, rescue workers could hear people from under the wreckage use their mobile telephones to call for help, not seldom in vain. Most dreadful are the accounts of unanswered mobile telephones ringing in the rubble, or even in body bags. All these cases vividly illustrate how feelings of reassurance and distress can come palpably close to merging into a single sentiment, how wireless communication technologies can augment both intimacy and isolation to such a degree that unlimited communication is indeed virtually reached, in all its real-time glory and ugliness.

**Omniscience and collectiveness through ever-present knowledge**

The final characteristic of wireless communication technologies examined here is, like the three discussed above, intimately connected to topoi expectations of what new communication technologies ideally should be capable of. It is the project of freeing access to information and knowledge, which, when pressed to its radical ending point, should enable anyone to know anything on whatever
topic, and become a member of a completely transparent society. This is a familiar utopian narrative, of course, and the mobile communication age has sparked renewed belief in necessary fictions that tell of ways to make this outlook a reality. Personal wireless communication devices such as mobile telephones are presented as enabling technologies with emancipating powers, giving instant and ubiquitous access to people and information resources which would not have been as easily – if at all – available in the days before wireless communication technologies. The emphasis in such imagery is often on reaching harmony and agreement through the exchange of knowledge, and on making progress through the fusion of ideas. The questions are, though, if these communication technologies are indeed experienced by their users as such, and to what extent idealised ideas of making all knowledge and information accessible clash with the realities of everyday mobile communication.

The force behind the current knowledge and information paradigm in mobile discourse is ‘largely technology-driven’ (Castells et al. 2007: 110). One thing that is readily noticeable in the evolution of mobile telephones is that, since the 1980s, there has been a growing complexity of communication possibilities, which offer more and diverse ways to interact. First, obviously, there was calling. This facilitated spoken dialogue between two individuals who could be located anywhere, and, especially in its early business-oriented days, it advanced the notion that people themselves had become more available as social and informational resources. Then, with the development of the GSM standard in the early 1990s, text messaging (or short message service, SMS) was added as an asynchronous ‘store-and-forward’ service (Goggin 2006: 69). Although since the end of the 1990s SMS has been appropriated by mainly young people as a means to keep in touch, its initial proposed purpose was to function as a ‘unidirectional system for sending “mobile terminated” messages’ (Taylor & Vincent 2005: 79). Both types of SMS use have been retained over the years, and nowadays SMS enables individuals not only to engage in mediated dialogue, but also to disseminate messages among larger groups of people, receive automated notifications, and send codes to computers which are then processed by specialised software. So, at the beginning of the 2000s, mobile telephones did more than just handle telephone calls; they had been integrated into a diverse range of social practices that involved retrieving and transmitting knowledge and information. Then, over the last few years, bandwidth capabilities were drastically increased and additional features were packed into mobile telephones: photo cameras, music players, games, and Internet browsers and apps all found their place in the small technological wonders, transforming them into smartphones.

We can see that entertainment and data processing functions have increasingly become significant components of mobile communication. As Castells et al. put it, ‘[m]obile communication devices are the multipurpose, multi-channel connecting points in the network of communication of which everybody becomes a
personal node’ (2007: 110). Their description of people as ‘personal nodes’ here is
telling, as it raises the question whether entertainment and data processing some-
how corrupt the social nature of the mobile telephone by transforming it into a
converged set of individualising technologies. However, while the process of
adding new features has largely been the result of the mobile industry’s search
for more revenue, the quick acceptance by the general public of these features
also testifies to the growing cultural importance for the individual to be con-
ected to her social network in a variety of ways, using more than just speech
and text to communicate. Moreover, both industry push and consumer pull at
least in part originate from the same realm of necessary fictions that say that
increased and diversified connection possibilities are what improve the sharing
of knowledge and the advancement of human cooperation. So, the individual
may be the preferred target of selling strategies, but, crucially, the heterogeneous
interlinking of personal nodes has also intensified the awareness that knowledge
and information become more decentralised in the mobile age, making all con-
nected individuals part of an ever-present collective network where every member
potentially is in the know. This awareness, which clearly echoes ideas of idealised
communication that were found in perceptions of networked communication in
chapter 2, can especially be located in present-day discourses of the mobile/wire-
less Internet and of the perceived democratising nature of mobile telephones.

The Internet carries with it, as we saw earlier, the enlightened ideology of uni-
versal access to all available knowledge. As a medium of media and the facilitator
for the global addition, storage, transmission, and retrieval of whatever kind of
information by anyone with a connection, it remediates all previously known
communication technologies, and as such it has inherited the hopeful aspirations
of every expectation expressed so far that a communication utopia is finally within
reach. Tragically so, it turns out, because there is always the doubt that we are not
quite there yet, that there is still something that needs to be improved. The
current perceived problem of the Internet, aptly voiced by media scholar Paul
Levinson, is that the personal desktop computers that give access to the Internet
make us ‘highly dependent on walls in rooms’: they require lots of energy, and
thus are in need of electrical outlets (Levinson 2004: 38). The solution, he says,
lies in wireless communication technologies, which can bring the Internet out in
the open to create a world of ‘immediate information’ (ibid.: 55). With his ‘reme-
dial’ approach to the evolution of media, in which he sees developments as direct
reactions to perceived disadvantages of existing media, Levinson here conveys the
charged yet familiar and mythical notion that there is a ‘natural desire’ for com-
munication to be free and on the move, that making the Internet wirelessly acces-
sible satisfies a human longing (ibid.: 9-15). And indeed, we see that mobile
technology industries treat the development pattern of wireless Internet as similar
to earlier, established ‘good tricks’ in media evolution, because it, as one enthu-
siastic chronicler of wireless Internet writes, ‘covers all communication needs of human beings’ (Jamalipour 2003: 3).23

Such sweeping and skewed remarks are not uncommon in discourses on wireless Internet. The perceived magic of wireless technologies, combined with the imaginative power of a global information system, quite palpably creates a language of communication that harbours very familiar idealised statements about improvement, fulfilment, completeness, cooperation, and so forth. The aptly named British wireless broadband provider The Cloud, for instance, promises on its website to deliver ‘[p]roper access to information, communication tools and mission-critical applications’, which will advance productivity by increasing work effectiveness and ‘keeping your people connected away from home or the office’ (The Cloud 2007, emphasis added). A similar, but user-operated and not-for-profit project is run by Community Wireless, an organisation that, when advocating the sharing of wireless Internet connections with community members, says it represents ‘a global dream’, and propagates on its website the coming of ‘the Organic Internet. The Internet re-born. The Internet the way it should be’ (Community Wireless 2001). Such utterances are not limited to advertisements or idealists’ rhetoric, however; analyses of end users’ perceptions of wireless Internet applications have also revealed that people expect and experience advantages in terms of ‘newer and better ways of being [...] in touch with information’ (Ng-Krüll et al. 2004: 5).

With the advent of mobile telephones that support high-speed data transmissions, as well as with the growing number of Internet-enabled devices such as iPhones and Symbian/Android-based smartphones, wireless Internet increasingly finds its way into the palms of many hands.24 In the past five years mobile telephone producers and service providers have started stressing that the current crop of devices represent that ‘what computers have become’ (Nokia 2006), that they finally connect you in any way to ‘the people who matter most’ (T-Mobile 2010), and that life will become better as ‘[f]rom now on, we all have more time, because [...] the Internet is now truly mobile, so you can make use of every minute of every day’ (Vodafone UK 2007). All these slogans of course serve to point out that the marriage between the Internet and mobile communication devices is a successful match, but they also subtly push the idea that the arrival of wireless Internet is part of a natural process, one that is on a trajectory of fusing all information and people together in a world where opportunities to make use of those fusions are abundant.

The second important area in which we can identify the idealised notion that, through their attributed inherent ability to share knowledge and information, mobile communication devices are instrumental in the construction of an egalitarian space of collective intelligence, is in accounts of their supposed democratic nature. Especially mobile telephones have become powerful symbols of both communicative liberation and social inclusion, and as such are seen as the instru-
ments of choice for bridging all forms of divides, be it the political divide, the economic divide, or any other demographic digital divide variable. The main reason for this symbolic investment lies in the perception of the role of earlier mass media in constructing a homogenised and even imposing system, in which dominant power relations and an undemocratic control over communication and information networks largely prohibited individual expressions of opinion to be made public. Visibly making use of myths of the technological sublime, criticism of the mass media has taken the shape of celebrating new, decentralised, and personalised communication technologies, with which old communication obstacles are thought to be eradicated. Thus, next to the Internet, mobile telephones are often touted as a very effective means to circumnavigate the disadvantages posed by the mass-media system, and to create new networks of cooperation. Imaginative stories of how they enable people to group together in what Howard Rheingold (2002) calls ‘smart mobs’, and subsequently oust presidents, overthrow governments, or orchestrate massive ad-hoc demonstrations, all serve as powerful new chapters in necessary fictions of hope and progress achieved through improved communication technologies.

While such stories are prone to overestimate the role of mobile telephones and are often more anecdotal than substantive, they do convey a demonstrable and widely held understanding of wireless communication technologies as catalysts of changes in societal power relations. With the caveat that he does not want to suggest any inevitability about mobile telephones opposing centralised power, science and technology historian Jon Agar, for instance, sees ‘a correlation, a sympathetic alignment, between the mobile phone and the horizontal networks that have grown in the last few decades in comparison with older, more hierarchical, more centralised models of organisation’ (Agar 2003: 162). Similarly, after having been equally careful in avoiding the construction of a technological determinist argument, Castells et al. assert:

Still, it cannot be denied, based on the observation of recent processes of sociopolitical change, that access to and use of wireless communication technology adds a fundamental tool to the arsenal of those who seek to influence politics and the political process without being constrained by the powers that be. (Castells et al. 2007: 212)

Other empirically gathered evidence of how mobile telephones can assist in throwing off the shackles of poor government and economic disadvantages can particularly be found in developing countries, where micro-entrepreneurs use the devices to access price information themselves instead of relying on suspect state-controlled media reports (Donner 2003). So, even though we should not discount other factors that play a part in social, economic, and political change, we can say that wireless communication technologies are perceived as adding a significant
impetus to bringing about that change. The idea, again, is that by unlocking channels to information and knowledge, they empower the individual.

We should be careful, however, not to identify the empowerment of the individual and the growth of horizontal networks as unique utterances of the idealised desire to create harmony and ultimate togetherness through improving communication. Nor would it be wise to ignore the drawbacks of these processes, which define just as much how we experience the change towards the mobile communication age. As more and more people are connected, the kinks in idealised ideas of communication will become increasingly articulated. In the grand project of raising access to knowledge and information to ubiquitous levels, one of the more conspicuous problems for instance is that, as the flow of information grows over time, more doubts will arise about the value of retrieved information, as there will always be more to evaluate. As James E. Katz notes, ‘technologies of freedom’ such as the Internet and mobile telephones aim to establish ‘pluralism of expression rather than a dissemination of prefabricated ideas’, and as such they create ample room for struggles over meanings and interpretations (Katz 2006: 151). Thus, in what he sees as an ironic reversal of Claude Shannon’s axiom that information is uncertainty reduction, Katz holds that ‘increased information also leads to increased uncertainty’ (ibid.: 152). A similar observation comes from Joshua Meyrowitz, who, after having explored how wireless communication media create new possibilities for ‘non-geographic “groups” to act together’, notes:

Ironically, the increased potential to access, juxtapose, compare and contrast, and construct alternative narratives is often paired with the reduction in the psychological inclination to engage in such time-consuming analysis. Paradoxically, the more our new technologies allow us to accomplish in an instant, the more we seem to run out of time. (Meyrowitz 2003: 100-101, emphasis in original)

Meyrowitz here reaffirms the notion that the ever-returning hopes and promises that social harmony will automatically increase with improved communication continuously clash with the reality of everyday communication, in which the need to filter and select is strong but the ability to do so is limited. Echoing the problematic effects of the desire to achieve communication utopia discussed earlier, such clashes in the swelling streams of information can induce anxiety over reachability, transparency, and accountability. What information is true or useful, and what is not? Where did it originate, and from whom? Just as mobile telephones can easily aid in spreading important news or calls for action, they can also multiply rumours and inaccurate information, perhaps even more so than other media because of their personal nature (Fox 2001; Castells et al. 2007: 212). Furthermore, instrumental as they may be perceived in the possibility of connecting people in a truly democratic fashion, their use is predominantly geared
towards maintaining existing social networks, and not towards integrating into a larger social cohesion (Fortunati 2003: 249-250). Again, this reveals the contradictory human tendency discussed earlier to also resist the implications of the formation of a ‘grand togetherness’, and to be wary of a state of existence in which individuality and belonging no longer carry their current meanings.

As was the case with the previously discussed characteristics of mobile communication, by radically opening up access to and production of knowledge and information, wireless communication technologies fervently confront us with the paradoxes of pure communication, getting us closer to the fulfilment of the desire for unlimited connectedness but at the same time letting us experience its ruthless blending of all actors involved. This process will continue to go on, co-oriented by the myths that say that there is still room for more improvement.

**Improving perfection**

*Technology. Making ‘better’ better. Onwards, upwards, any way but backwards. Tapping progress on the shoulder, and saying: more forwards please! (Honda 2006)*

If there is one thing that should be adamantly clear after the analysis of how idealised ideas of communication find their expression in wireless communication technologies, it is that new devices may on the one hand be presented and experienced as truly bringing important prerequisites of pure communication a big step closer to becoming a reality, but that they, on the other hand, strikingly resemble other and older media technologies in being just another tragic attempt in the never-ending quest to reach communication utopia. As with those earlier attempts, both wilful amnesia and myths of progress have accompanied wireless communication dispositifs from the onset, making sure it is quickly forgotten that the media we have now are themselves already the result of trying to improve things, and telling us we need to improve once more. Thus, mobile communication devices are unstable media, always part of an evolutionary process that knows no end, always susceptible to all kinds of social, political, and economic factors that, together with idealised ideas of communication, lay bare strong as well as weak spots and open up new paths for improvement. Because we continuously run into the paradoxes of the desire for pure communication, we keep on eliminating as well as creating obstacles, and therefore set ourselves up for the inevitable lure of the beckoning future or for the looming threat of the onrushing future. There is still more road to travel and still more to add to what we have got, is the prevalent attitude. Today, there are two widespread developments in the wireless communication paradigm that are presented or perceived as making mobile communication devices even better than they are now: the introduction of location awareness capabilities and the creation of the Internet of Things.
Location awareness

One of the most noticeable additions to mobile communication devices in the past few years has been the possibility to have them ‘know’ where they are in geographical space, and thus make them location-aware in their functioning. Of course, because cellular technology works with uniquely identifiable base stations that provide radio coverage for mobile telephones in small overlapping areas (or cells), a certain knowledge of where the devices are located has always already been part of the cellular system. However, the range of these cells can vary between seven hundred metres to as much as 70 kilometres, making it very hard to pinpoint exactly where a connected mobile device is when only its cell identification is used as a marker. It is only now, when GPS processors are slowly but surely becoming a default feature of mobile telephones, that their location can be determined much more precisely, with a typical accuracy that ranges between less than a metre and about fifteen metres. Fuelled not only by the mobile industry’s need to create additional streams of revenue, but also by FCC and EU regulatory decisions aimed at aiding rescue workers in accurately responding to emergency calls made on mobile telephones, GPS-equipped communication devices are quickly becoming commonplace.

The effect of this beefing up of wireless communication technologies promises to be profound. While communication devices such as mobile telephones first transferred mediated conversations from the ‘situatedness’ of fixed connections to the highly nondescriptive ‘anywhere’ of media space, their location awareness now reinserts a spatial variable into our understanding of mobile communication. Not only does this potentially reconstruct earlier conceptions of what it means to be spatially connected, but it also incorporates location as yet another type of accessible information into our growing sense of omniscience. From this process a new kind of hybrid space emerges, one where additional information layers have been added to physical locations, and where a user of a mobile device will have been transformed into an even more tightly integrated node in an ever-expanding information network (Vries 2012). In such a hybrid space, more and more variables will be stored in databases and become available for query, to be used in many conceivable social situations or emergencies (see Gordon & de Souza e Silva 2011). The digitisation and mobilisation of location can thus be perceived as adding yet more weight to the persistent idea that mobile wireless communication technologies can (and are expected to) offer us access to any type of information, anytime, anywhere.

It is therefore hardly surprising that location awareness is researched and marketed as vigorously as it is today. It presents the opportunity to proclaim renewed hope in a better, even more beckoning future where communication has yet again been improved. In a familiar display of how idealised ideas of communication come to be expressed in wireless technology discourse, the notion is put forward...
in press releases and technical papers alike that with location-aware devices a ‘qualitative leap’ is made in mobile communication, one that will ‘deliver relevant, timely, and engaging content and information’, and ‘can help reduce confusion’ (Rao & Minakakis 2003: 61, emphasis added). In scenarios of today’s communication needs, the modern citizen is portrayed as being in danger of becoming unsettled, either by daunting tsunamis of information or by her lack of knowledge of her immediate surroundings, and, as usual, she is promised that new communication technologies will help solve those problems and make life easier, this time by interacting with her surroundings in all kinds of ‘intelligent’ ways. The problem-solving characteristics of new location-aware mobile technologies are especially highlighted in some of the more recent NTT DoCoMo promotional videos, which present us with a mobile life in the near future that, through a pursuit of ‘Smart Innovation’, is strongly integrated with positioning technologies (NTT DoCoMo 2010). There seems to be no limit to what those interactions might be: proposed applications that make use of added spatial intelligence include the abilities to navigate unknown roads, find nearby friends, locate restaurants or other businesses, receive offers from stores while passing them, play location-based games, walk ‘digitally enhanced’ touristic routes, and so forth. The only thing that is needed to never get lost again in the myriad of data, or so it appears, is the new, context-sensitive wireless communication device.

In the rhetoric of advertisements and industry forecasts, then, location-aware mobile devices are often denoted as constituting a new breed of ‘smart’ technologies. This not only suggests that previous versions of mobile devices and other older communication technologies were ‘dumb’ and were in dire need of improvement, but also that the new devices have gained in autonomous behaviour. The rationale behind the use of ‘smart’ as an ideograph here fits perfectly with the discursive strategies that idealised ideas of communication would typically produce: with added intelligence at hand, packed in a small technological marvel, the burden to communicate without obstacles cannot be but alleviated, so it seems. As a result, the perception of what is being ‘smartened’ is not restricted to the devices only; in one smooth sweep, communication itself also becomes smart, intelligent, efficient, and freed from obstacles. Again, the fact that the paradoxical consequences and dilemmas of an actual fulfilment of such a smart future are cunningly occluded illustrates not only how promises of a better future depend on tempting images in general, but particularly on the portrayal of communication as something that through its improvement has helped us getting to that better future in the first place.

The Internet of Things

From the mobile world in which handheld, networked, and location-aware devices can interact with their surroundings and create an additional informa-
tional relationship between people and their spatial context, it is a small step to envision a world where such ‘intelligent’ connections have become even more pervasive, and physical objects themselves can compute and communicate information across wireless networks. This is more than just a science fiction fantasy; it is a prominent line of thinking that is visible in discourses produced by the wireless industry, and already an actual fact in personal micro-networking environments and in domains where logistics operations and tracking goods are of particular importance. Several enabling technologies have been developed in the past few years to make the ubiquitous computing scenario a reality, of which Bluetooth and radio-frequency identification (RFID) tags are the most common.

The Bluetooth standard, aptly named after the medieval Danish king Harald Blåtand for his unifying powers, was created to make multiple devices communicate with each other through the use of radio transceiver microchips. Such Bluetooth-enabled devices can detect and connect to each other to form small data networks, in theory linking up very heterogeneous technologies such as mobile telephones, refrigerators, stereo sets, personal computers, and microwave ovens. RFID tags are somewhat comparable to radiographic bar codes, but with the added value of being able to store all kinds of contextual information for the objects they are attached to. They are very small, cheaply produced and easily distributed radio transceivers that can be embedded in items such as groceries, clothes, money notes, passports, animals, cars, or mobile telephones. Combined with growing wireless Internet connection possibilities and the integration of GPS in mobile communication devices, Bluetooth and RFID add to an ever-finer mesh of network technologies.

The discursive logic that accompanies the advent of these tiny radio transceivers provides an exceptionally fine case in point to illustrate how wireless networking technologies are readily endowed with all kinds of interconnective and unifying powers, and are perceived as the next step in bringing about an even more seamless world experience. Originally coined by former Proctor & Gamble brand manager Kevin Ashton when formulating an RFID-based solution for the logistical problems of efficiently storing and transporting his company’s products, the phrase ‘Internet of Things’ was at first a rather bloated way of describing how, as he put it, goods could be tracked ‘from manufacturing to the consumer and even through recycling’ (Roberti 2002). Indeed, if we look at the predominant way in which RFID tags are currently being used, we should still be inclined to think of the term Internet of Things as being somewhat overwrought. At present, the miniature radio sensors mostly have been deployed in areas where they can provide an economic or security advantage, for instance by eliminating the need to manually scan or register bar codes on products, by reducing fraud without having to physically count and check the authenticity of chips on a casino poker table, or by increasing the amount of control over who has physical access to
various infrastructural facilities (Gilbert 2005; Kürschner et al. 2010; Thiesse et al. 2009).

However, this instrumental use is not seldom seen as the starting point of what could, in a very near future, amount to the more transcendental marriage of bits and atoms, the vision of a global multipurpose network of sentient and data-collecting objects that is foreseen and popularised by people like Nicholas Negroponte, Howard Rheingold, and Bruce Sterling. Especially Sterling is of interest here; as a science fiction writer with an avid interest in all things associated with imagined and dead media, and as such a frequently invited keynote speaker on everything related to the possible futures of new technologies, Sterling has a well-informed view of some of the more radical implications of implementing small and cheap transceiver technologies on a grand scale. In his book *Shaping things* (2005), he argues that a massive deployment of RFID tags – which he, in an attempt to quench the predominantly corporate business-like language connoted by the acronym, proposes to call ‘arphids’ – presents us with a mode of living in which everything has become an information object that is identifiable, traceable, searchable, readable, filterable, and, most of all, available for use (Sterling 2005: 85-91). Subsequently, in the resulting – now more aptly named – ‘Internet of Things’, Sterling holds, ‘many previously knotty problems simply vaporize, they become trivial’ (ibid.: 93). Clearly, the notion of an Internet of Things thus comes to stand for yet another all-encompassing technological solution, one that operates as an omnipresent information and knowledge safety net, as a mental cushion that is seamlessly integrated into everyday life.

Sterling’s views on the possible outcomes and projected uses of such a grand web of interconnected radiochip-equipped objects resonate across a wide range of visions on the future of communication technologies, and recall well-known utopian discourses.29 Most notably, they can be located in the 2005 annual report of the International Telecommunication Union (ITU), the specialised United Nations agency that, since 1865, recommends standards and formulates regulations aimed at strengthening international telecommunications consensus. Again, idealised ideas of improved communication can be distinguished in this influential report: the prevalent motive behind the formation of an omnipresent constellation of networked humans and intelligent devices and objects is that it fulfils the desire to, in the words of analysts from the Strategy and Policy Unit of the ITU, take the ‘next logical step in this technological revolution [of] connecting people anytime, anywhere’, and create an ‘Internet of Things [that] will enable forms of collaboration and communication between people and things, and between things themselves, hitherto unknown and unimagined’ (ITU 2005a, emphasis added). The crux is, of course, that the forms of collaboration and communication that will be enabled are already known and imagined, as they will be built on deeply ingrained and very familiar desires for ideal communication that have oriented many of the ‘logical’ steps in media evolution.30 The vision of the
future of ubiquitous computing and communication simply takes the ‘anytime, anyplace, anyone’ mantra of the current mobile communication condition, and radically extends it into ‘anytime, anyplace, anything’, stretching idealised ideas of communication even more towards their theoretical limits. Equally visible are notions of beckoning and onrushing futures, which encourage and spur us on to act upon challenges and concerns. According to the report, the enabling technologies of the Internet of Things will, especially in the developing world, offer ‘medical diagnosis and treatment, cleaner water, improved sanitation, energy production, the export of commodities and food security’; if we do not choose to employ intelligent technologies that can warn us of a variety of hazards, however, we risk an increasing ‘loss of life due to natural disasters’ (ITU 2005b: 10-11). The future thus looks bright, but only if we abide by the presumed logical steps of technological revolutions; while the ITU is quick to note that the scenario of linking everything to everything might engender concerns over privacy issues, it sees these concerns as obstacles that can and must be overcome, and warns that if we are not aware of the future benefits, ‘the development of the Internet of Things will be hampered if not prevented’ (ibid.: 9). Crucially, the ever-growing dependency on large and complex technological systems is de-presented, masking the inevitable problems that come with that dependency and thus upholding myths of improvement.

In the end, the unabashed enthusiasm for what an Internet of Things holds in store for us is a continuation of earlier dreams of how communication technologies are able to bring us closer to finally bridging the gaps and removing all obstacles on the way to the communication sublime. Today, the dream is to use ubiquitous and pervasive wireless technologies to create an informational cloud, to facilitate access to an ambient intelligence, to expel anxiety over not being able to find, know, or understand someone or something, in other words, to construct a seamless information society where all questions can be answered by, in the words of the director of the Center for Bits and Atoms, Neil Gershenfeld, ‘embedding the means to solve problems in the things around us’ (Gershenfeld 1999: 10). When, in the future, we are all to dissolve into this global data stream, we might become like digital angels... but our wilful amnesia will have guaranteed that we will not consciously realise it.