

Chapter I

Propagating the Ideal: The Mobile Communication Paradox

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Abstract

In this chapter, visions of mobile communication are explored by focussing on idealised concepts surrounding wireless technology. By examining sources on the development, marketing, and use of wireless technology, I contextualise these visions within earlier accounts of ideal communication found in media history and isolate the regularities that are part of these accounts. On close examination, a paradox reveals itself in these regularities, one that can be described as resulting from an uneasiness in the human communication psyche: an unfulfilled desire for divine togetherness that clashes with individual communication needs. While the exact nature of this paradox—innate and hardwired into our brains, or culturally fostered—remains unknown, however, I assert that the paradox will continue to fuel idealised ideas about future communication technology. I conclude with the observation that not all use of mobile technology can immediately be interpreted as transcendental, and that built-in locational awareness balances the mobile communication act.

Introduction

In October 2003, two British climbers were caught in a blizzard on a Swiss mountain. Rachel Kelsey and her partner Jeremy Colenso, both experienced climbers, were forced to stop behind a large rock at 3000 meters up and wait for the weather to clear. They soon realised that their chances of finding the abseil points in heavy snow were very slim, which meant they were stuck. They texted five friends, one of whom received the message in London at 5 a.m. and immediately notified the rescue services in Geneva. After having to wait another 36 hours because the conditions were too severe for the rescue team to pick them up, the two climbers were finally rescued (Allison, 2003).

The idea that Earth is becoming entirely networked is not new,¹ but the characteristics of mobile communication media have—just as with the first wireless revolution in the beginning of the 20th century²—fiercely fuelled the Western notion that through better communication technology all problems of communication will—finally—be solved (Peters, 1999). The “anywhere, anytime, anyhow, anyone” slogan, subliminally attached to every mobile apparatus, opens up a vision of a universally accessible communication space, in which the exchange of information comes to stand for the single most important condition of human progress. More than at any other time in history, this human progress is thought to depend on technological progress.

Rescue stories as those described in the opening paragraph play their part in keeping the idea alive that improvement through technological progress can be measured. The conventional wisdom is that human lives are the single most valuable things we can think of, and if new technology can help save them, it must be treasured. Moreover, if new technology such as mobile telephony makes possible a way of life that is never forsaken of human contact—which therefore is taken as *safe* because there will always be someone who can help—this technology is surely poised to be seamlessly adapted to and integrated in our being (Katz, 2003). Through the remediation of older dominant forms of communication and entertainment technology, the mobile device (or personal digital assistant (PDA) or smart phone, as it is increasingly being called by mobile phone operators and providers) does seem to try to provide an ultimate extension of the natural balance of our sense organs (Levinson, 1997, 2004). Future visions of mobile communication strive for setting up globally accessible meeting points that cater bodiless but perfect interaction, and ultimately for opening up a communication space in which everyone is represented.

This is the inherently human dream of reaching an ideal state, which is cunningly exploited by advertisements, telecom operators, service providers, and the like. We know it is a dream, and we know that we are confronted by it day after day. It will probably haunt us for centuries to come. However, just as “our desire for

each other [is] a poor substitute for the primary Eros—and therefore doomed to fail” (Campe, 2000), so are our telecommunication media substitutes for the primary *closeness*—and bound to fail (Vries, 2005). The end result of this is a tragic search for ideal communication through a continuous so-called improvement of communication technologies, a search that will never end.

This chapter will investigate the paradox of this eternal futile quest that we seem to keep embarking on, and will do so by looking at how mobile discourse is framed within quest-ending narratives. By analysing texts from influential scholars such as Pierre Lévy, Howard Rheingold, and Paul Levinson, we will get a grasp of how idealised ideas of the power of new communication technology have pervaded the mobile realm. From there, an attempt is made to single out the recurrent elements in those ideas, whose pervasiveness in our culture will then be examined. Finally, we will look at a few current trends in mobile cooperation techniques that potentially realise certain ideals of communication, albeit in a more pragmatic sense than a sublime one.

Unwiring the Knowledge Space

So far, it has mainly been cyberspace and its accompanying access points in the form of personal computers and laptops that are associated with potentially establishing the universally accessible communication realm. However, with the amount of mobile phones growing at an enormous pace,³ the mobile device has with stunning speed become an essential tool to establish and maintain social networks, as well as managing all kinds of data flows. In this capacity, the device seems perfectly poised to morph itself into the logical choice of medium when accessing the ever-expanding Über network, the Internet.⁴ Wherever, whenever, whatever: downloading or uploading information on the move, sharing news events as they happen with your carefully filtered online friends, checking in on your favourite weblog while lying on the beach; it is already possible and will be even more so when the devices grow into always-on mode. It is at this point where Pierre Lévy’s (1997) imaginative *collective intelligence*, located in what he calls the knowledge space, starts to come into its own on an immense scale.

Lévy describes the evolution of earthbound living as being immersed in a succession of four types of space, in which man’s identity is determined by the tools and symbols predominantly available in that space (see Table 1). The knowledge space is the fourth—and final—space in which we have come to live, and can best be seen as an informational cloud, a “space of living-in-knowledge and collective thought” (Lévy, 1997, p. 140). An important premise for its existence, growth, and preservation is that people interact with the informational

Table 1. Succession of spaces according to Lévy (1997)

Space	Identity
Nomadic Space of Earth	totems, lineage
Territorial Space	territorial inscription
Commodity Space	position within the domains of production and consumption
Knowledge Space	skill, nomadic cooperation, continuous hybridization

cloud by adding, changing, and retrieving data in whatever way possible.⁵ It is to “unfold and grow to cover an increasingly vast and diverse world” (Lévy, 1997, pp. 111-112), ultimately creating a universally accessible information realm. Already, we can recognise this vision in descriptions of the multiple thrusts behind both the Internet and the mobile revolutions, such as those found in marketing publicity and open source movements’ manifests alike.

Lévy’s hierarchical description of the four levels of space invoke Borgmann’s (1999) distinction between information *about* (“my shed can be found next to the willow tree”), *for* (“this is how you build a cathedral”), and *as* reality (“hi, I am Imar’s avatar, shall we start exchanging data?”). Both Lévy and Borgmann show us historical shifts that expose a dematerialising transition of the dominant form of information. Although—as is conspicuously evident from the title of his book *Holding on to Reality*—Borgmann warns us for a Baudrillard-like potentially dangerous split between information about/for reality and information as reality, Lévy is not so much concerned about the danger of leaving reality behind, as he frames the knowledge space firmly within the other three spaces: “[It is n]ot exactly an earthly paradise, since the other spaces, with their limitations, will continue to exist. The intention of collective intellect is not to destroy the earth, or the territory, or the market economy” (Lévy, 1997, p. 141).

Paradise or not, Lévy cannot help but describe the knowledge space in terms of “a u-topia ... waiting to be born,” “a cosmopolitan and borderless space,” “an electronic storm,” and “a sphere of artifice shot through with streaks of light and mutating signs” (Lévy, 1997, pp. 138-141), thereby mimicking the eccentric cyberpunk style of William Gibson’s *Neuromancer*. There is undeniably a religious element visible in the way Lévy writes about the knowledge space, in which information is to be uncoupled from its static base. This dematerialising movement fits perfectly with the transcendental nature of going wireless: liberating things by releasing them from their carriers (be it wires, paper, or the brain) promises more opportunities to interconnect those liberated entities, as they form free-floating nodes in a dynamic network. In the end, in its most radical

form, the idea is that every node can be connected to all others, providing instant and perfect transferral of whatever form of data.

As asserted previously, although the knowledge space is self-regulated and its transcendental nature gives rise to the supposition that it might leave the other spaces behind, Lévy holds that it can not be entirely separated from the three preceding spaces. Moreover, in a circular movement—“a return of the earth to itself,” as Lévy (1997, p. 141) calls it—the knowledge space connects back to the first space through the recurrence of the nomadic identity. Again, this is a characteristic that is typically found in the mobile device, as has been shown by scholars in recent literature (Gergen, 2003; Kopomaa, 2000; Meyrowitz, 2003). The multiple social roles we possess are called upon in increasingly diverse geographical and social environments when a mobile device is carried along: we can perform parental tasks while at work, we can keep in touch with friends while on vacation, and we can consume entertainment while sitting in classrooms. Slowly, urban design is responding to the diminishing need to build strict and fixed divisions between sites for work, leisure, and family, creating heterogeneous zones in which the individual’s social status is defined by the type of communication he or she engages with. The use of mobile technology therefore does not entail a full-circle return to the nomadic in the sense that it forces *us* to change location in order to find more fertile ground, as was the case in Lévy’s first earthly space, but it forces our *locations* to adapt to our dynamic modes of being.

The transcendental and nomadic nature of the knowledge space calls for an intricate investigation of the points where it meets other spaces, and of the materiality of these meeting points. Considering the ease with which the mobile device has found its place as the essential data tool, such meeting points, which according to Rheingold (2002) seem to call for a “marriage of bits and atoms” (p. 100) or for us to be able to “click on reality,” (p. 95) are set to be facilitated by the smart phones of the future. Or, as we will see in the next section, this is how it is envisioned in idealised ideas of communication.

The Lure of the Ideal

Although he admits to being utopian, and has subsequently tried to capture the dynamics of the collective intelligence in a formal language in order to make it more visible and tangible, Lévy has been criticised for painting an exaggeratedly pretty picture, ignoring the tough reality of political, economic, social, and other factors that influence the way communication technology is developed, produced, distributed, and used. In the fourth chapter of their book *Times of the*

Technoculture: From the Information Society to the Virtual Life, Robins and Webster (1999) accuse Lévy of “promot[ing] and legitim[izing] the prevailing corporate ideology of globalization,” and hold that “there is a desperate need for a richer debate of knowledges in contemporary societies — in place of the shallow, progressivist marketing that attaches itself to the cyberculture slogan (and reflects the hegemony of corporate interests)” (Robins & Webster, 1999, pp. 225, 227). In the same chapter, the aforementioned Rheingold receives similar flak for his—supposedly uncritical—belief in the Internet as a means of restoring communities.

However, Lévy and Rheingold are influential writers and are certainly not alone in taking an optimistic and idealised view on the possible contributions new communication technology can make to finally bring people together in an intelligent collective—nor will they be the last. If the years between the launch of the world’s first graphic Internet browser in March 1993 and the crash of the dotcom boom in early 2000 marked the building up of the cyberspace hype, then the subsequent years can be characterised as having been labelled the new and improved mobile or wireless era: countless press releases, research papers, news articles, advertisements, books, radio shows, and television programmes have heralded mobile technology as the ideal solution to many communication problems. Two books I would like to bring to the fore in this respect are *Smart Mobs: The Next Social Revolution* by Howard Rheingold (2002) and *Cellphone* by Paul Levinson (2004), as their structures show interesting similarities with Lévy’s (1997) approach—and with it, the same dangerous tendency to overestimate communication technology’s power to fulfill longtime ideals of communication.

Comprised of a large series of anecdotal, interview, and travel journal material, *Smart Mobs* intends to uncover the characteristics of the “next social revolution,” which is to be cranked up by the new mobile devices that “put the power of instant and ubiquitous communication — literally—within everyone’s grasp” (Rheingold, 2002, back cover). Describing an impressive amount of trends, experiments, news reports, and commercial projects within the global realm of mobile telephony and computing, Rheingold shows how “technologies of cooperation” have an inherent tendency to group people together—and where there is a group, there are opportunities to learn, create, or topple over. The well-known (albeit somewhat overused) example of the protest demonstration in the Philippines in 2001, in which more than 1 million people were rallied by text messages to oppose Joseph Estrada’s regime, is used by Rheingold as a key argument in describing a pivotal cultural and political moment: the power of mobile, ad hoc social networks is not to be underestimated; it can even influence politics on a momentous scale! To be fair, Rheingold’s argument does not hinge upon this example alone; next to three other activist movements, he also mentions the squads of demonstrators that, thanks to mobile coordination, *won* the “Battle

of Seattle” during a World Trade Organization meeting in 1999. These *movements*, however, have been minor in impact and longevity, and do not appeal to the imagination as much as the Philippine regime change does. It is therefore that *Smart Mobs* focuses mainly on events and projects that contain a clearly visible potential to change things; after all, what better way is there to show that the social impact of mobile technology is not only measurable, but can also be described in terms of setting in motion an unstoppable voyage towards a better future?

Other examples of what the consequences of ubiquitous mobile communication might be are equally carefully chosen for their provocative nature. Among the phenomena that await us, Rheingold (2002) names WiFi neighbourhoods; wearable computing that makes our environment aware of our presence and can react accordingly; RFID tags that provide contextual information on any object; and swarm intelligence that makes possible useful emergent behaviour. He does his best to convince us of the inherent potential of these things to fundamentally change the way we are living—and does so with an obligatory nod to the possibility that some of those changes might not be as pleasurable as we would like—but fails to go much further beyond stating the mantra *together is good*. The majority of Rheingold’s examples, however tangible and useful they may be within their own context, are used to construct a vision of a futuristic world in which the possibility to connect things (people and machines) is most highly rated. To connect is to solve, to evolve, to come closer to the ideal of sublime togetherness.

Levinson’s *Cellphone*⁷ is another very good example of how opportunistic ideas found in much cyberculture literature have been transferred to the mobile realm. Not wasting any time, the book’s subtitle, which is as subtle as it is provocative, already promises to tell us “[t]he story of the world’s most mobile medium **and how it has transformed everything**” (bold in original). Working from within his Darwinian approach to media evolution—only the fittest media persist in the human environment—Levinson holds that “the cellphone has survived a human test,” and that the human need it satisfies is “as old as the human species — the need to talk and walk, to communicate and move, at the same time” (Levinson, 2004, p. 13). This need, which “even defines the human species” (Levinson, 2004, p. 13), is satisfied by the mobile device to such an extent that Levinson foresees the end of the digital divide; the rise of new and more honest forms of news gathering and dispersal; and the birth of a smart world.

The most important (and obvious) characteristic Levinson stresses is that the mobile device blurs the boundary between inside and outside, rendering it unnecessary to confine ourselves to brick and mortar rooms when we want to call someone or find information. The consequence of this blurring is that it will enable us to “do more of what we want to do, be it business or pleasure, pursuit

of knowledge, details, companionship, love,” and that it will make “every place in the world in which a human may choose to thread ... well-read, or ‘intelligent’” (Levinson, 2004, pp. 60-61). Dubbing this intelligent world a “telepathic society”—accompanied by the obligatory but hollow disclaimers that “our progress ... will be tough going at times” (Levinson, 2004, pp. 60-61) and that the mobile device not only solves things but generates new problems of privacy as well—Levinson sides with previous visions of emerging all-encompassing intelligence that have proved to be vulnerable to easy critique, including the Noosphere of Teilhard de Chardin (1959), the morphic fields of Sheldrake (1989) and the global brain of Bloom (2000). As we will see in the next section, the recurrence of these ideas is not coincidental.

Researching Regularities

Clearly, optimistic visions of new futures are often met with scepticism, but this does not stop them from reoccurring through time; especially when new information and communication media find the limelight. To understand why this “almost willful, historical amnesia,” as Mosco (2004, p. 118) calls it, occurs, it is necessary to investigate the underlying regularities of such idealised claims, and to map the basic elements that make up those regular elements. By focussing not on a new medium itself—nor on what it is that makes it unique—but on the path that lies before that medium, we can get a detailed view of the moments in time that mark significant contributions to the medium’s earlier discourse. This can best be achieved using the so-called media archaeology approach, which aims to prevent historical amnesia by “(re)placing [the histories of media technologies] into their cultural and discursive contexts” (Huhtamo, 1994). Doing so, the emphasis is shifted “[f]rom a predominantly chronological and positivistic ordering of things, centered on the artefact, ... into treating history as a multi-layered construct, a dynamic system of relationships” (Huhtamo, 1994). It is these relationships that can clarify the intricate ways in which idealised regularities in the dynamic communication media discourse may have changed face, but not their core.

Huhtamo proposes to call the regularities *topoi*, or topics, which he defines as “formulas, ranging from stylistic to allegorical, that make up the ‘building blocks’ of cultural traditions.” He stresses that these topoi are dynamic themselves: “they are activated and de-activated in turn; new topoi are created along the way and old ones (at least seemingly) vanish” (Huhtamo, 1994). In other words, topoi are highly political and ideologically motivated. As an example of a topos found in media history, Huhtamo considers the recurrent “panicky reactions” of public

being exposed to visual spectacles, and finds these in illustrations of the Fantasmagorie shows at the end of the 18th century, in reports of the showing of the arriving train in the Lumière brother's *L'Arrivee d'un train a La Ciotat* (1895) and in the stereoscopic movie spectacle *Captain EO* in Disneyland. There is, of course, a danger of over-interpreting historical sources that may well have served another function than to give an accurate account of what actually happened, but this is exactly Huhtamo's point: "unrealized 'dream machines,' or discursive inventions (inventions that exist only as discourses), can be just as revealing as realized artefacts" (Huhtamo, 1994). The Lumière showing may well not have created any panic at all, but it still remains a poignant reference, a media myth that is repeatedly used in numerous books, articles, and essays in which the reception and impact of new media is discussed. Media archaeology tries to expose these dubious but persistent stories, to collect and dust off forgotten elements of a medium's history by looking at discursive connections, however weak those connections may be. By looking at the many levels on which the discursive construction of a communication technology presents itself, media archaeology bridges the revolutionary gaps that are often found in teleological historiographies of that technology.

This archaeological approach has been put to practice by several scholars in recent years,⁸ and has so far been successful in revealing and critically analysing media topoi such as the desires for immediacy, presence, liveness, and simultaneity. The most powerful (or overarching) topos, however, is the gnostic longing to transcend earthly life by improving technology, and to create a Universal Brotherhood of Universal Man. This ultimate topos unites every imaginable description of fulfillment, perfection, pureness, and harmony, and can be found in accounts of every communication medium, in every stage of its development, production, distribution, and use. The dream to finally fulfill the ultimate topos through improvement of communication technology can be comprehensively traced through media history, as many scholars (Mattelart, 2000; Mosco, 2004; Peters, 1999) have already shown. As I have written elsewhere, "[w]ireless telegraphy was seen as 'the means to instantaneous free communication'; telephony seemed to promise banishment of distance, isolation and prejudice; radio would pave the way for contact with the dead and television would transform its viewers into eyewitnesses of everything that went on in the world" (Vries, 2005, p. 11). With every development, be it technological, political, economical, or social, the regularities in discursive accounts of older media have been passed on to newer versions, thereby changing form but not essence.

The argument here is that mobile technology fits into a long line of media in which a limited set of regularly used *modes of reflection* determines the discursive domain of media reception. By analysing the discursive construction of mobile technology and comparing it to that of previous communication media, we can get a grasp of the topoi that have flourished or been revived—be it essentially

unchanged or in disguised form—and of those that have floundered or been abandoned. Some of the most interesting indicators of these topoi are to be found in rationalisation techniques people use when explaining why they buy mobile phones, or what they are mainly going to use them for. On the surface, these explanations mostly point to very pragmatic reasons. Field study has shown that common justifications for acquiring a mobile phone are business, safety, and security (Palen, Salzman, & Youngs, 2000). On a deeper psychological level, however, these pragmatic reasons can be tied to fears of solipsism, a desire to increase the amount and strength of communication channels in the social network, and a wish for greater control over one's overall connectivity and availability. Just as we have seen in Rheingold's *Smart Mobs*, a need for the potential to increase *togetherness* is expressed in the mobile discourse, reflecting the ultimate topos of ideal communication.

The hints of religious elements present in these uncovered communication ideals is not surprising; just as Ludwig Andreas von Feuerbach stated in the middle of the 19th century that God is the projection of the human essence onto an ideal, so is an ultimate communicative Being One a projection of a human essence onto communication ideals. The religious motifs continue to exist today: authors such as Erik Davis (1998) and David Noble (1997) have written elaborate accounts of how contemporary technological discourses are still undeniably intertwined with religious beliefs, despite the widely held notion that since the Enlightenment these categories have slowly but surely separated. Such is the case with the topos of ultimate togetherness: the fears and desires disseminated by that topos are exponents of a mixture of the autonomous behaviour of the liberated Cartesian subject on the one hand, and a dream of a bodiless sharing of minds, described by Peters (1999) as angelic communication, on the other. This is a deeply paradoxical mixture, however. Angelic communication shows all the hallmarks of a divine togetherness: with no physical borders and direct one-on-one mappings of minds, every entity will ultimately know and be the same. This loss of individuality collides with the search for more control over one's individual connectivity found in the modern subject's autonomous behaviour. Both angelic communication and complete autonomy are idealised opposite poles on the same scale, and will therefore remain forever out of reach.

Thinking through Paradox

The crux of the communication paradox can be described as an uneasiness in the human communication psyche, born out of the tension between the desire for ideal communication and the knowledge of never being able to reach that goal.

This is not to say that every individual always wants to strive for perfection. Moreover, reaching perfection may not be what would actually be beneficial for human kind, as many dystopian answers to utopian projects, proposals, and literature have shown; there is no room for individuals or deviations in a society that can only function perfectly if every citizen is synchronised in the grand scheme.⁹ Still, the paradox holds, as even in dystopian visions the utopian looms; in the end, Armageddon, the ultimate dystopian event, does nothing more than to destroy old structures in order to lay the foundation for a new, perfect one. A similar argument can be made for a dominant part of the communication media discourse: New media strive for the abolishment of old media in order to provide improved togetherness (Bolter & Grusin, 1999).

As we have seen in the previous section, the successive observations that the development phase and subsequent promotion of communication media are almost always framed within idealised expectations, that these are always accompanied by dystopian rebuttals, and that this process of touting and dismissing keeps reoccurring through time, give rise to the assumption that there is a steady undercurrent present, a topos that can be described as an idea of ideal communication that drives humankind to keep searching despite guaranteed failure. The objection to this assumption might be that this process is merely a marketing mechanism, but such a mechanism can only work if it addresses a human longing, one that is sensitive to promises of solving the communication tension.¹⁰ The question, then, is whether the paradoxical attitude towards communication technology is innate, or if it is just a temporary, culturally sustained concept of progress left over from the Enlightenment, which, at some time in the future, is to be replaced by another concept. If it is innate, we will not be able to escape it; if it is not, we might be able to understand how to change or manipulate the structures in which the paradox resides.

To ask the question of innateness is to enter the realm of epistemology, the study of how we can know the world around us. Until the middle of the 18th century, this field had known two fairly opposed visions: the rationalist and the empiricist view. The rationalist Innate Concept thesis holds that there are some concepts that are already in our minds when we are born, as part of our rational nature. The notion that we can have a priori knowledge, that we have some innate awareness of things we know to be true that is not provided by experience, rests on the premise that the concepts used to construct that knowledge are also innate. Empiricists, however, argue that there are no innate concepts, and that experience alone accounts for the raw material we use to gain knowledge. The most well-known proponent of empiricism, John Locke, wrote that humans are born with a blank mind, a *tabula rasa*, which is *written onto* by experience. Knowledge, therefore, is not brought to consciousness by experience, but is provided by that experience itself.

This distinction largely disappeared toward the end of the 18th century when the two views were brought together by Emmanuel Kant, who divided reality into the phenomenal world (in which things are what they appear to us to be, and can empirically be known) and the noumenal world (in which things are what they are *in themselves*, and where rationalism rules). According to Kant's transcendental idealism, innate concepts do exist, but only in the noumenal world, where they remain empirically unknowable. Arguably, these innate concepts are philosophical in nature and therefore proof of their existence remains hard to formulate, but this does not mean *innateness* is always metaphysical. For instance, genetic theory, a late 20th century science, claims to provide empirical evidence for the existence of innate mechanisms in cognitive evolution: Human brains are not *tabula rasa*, but prestructured in specific ways so that they can learn things other organisms can not. While some elements of evolutionary psychology (EP) are highly controversial,¹¹ it is increasingly accepted that we all come wired with what Chomsky (1957) has called a Language Acquisition Device (LAD): Not only do we possess an innate capacity to learn, but also an innate set of universal language structures. This means that, independent of our social, cultural, or ethic environment, we already *know* how language works before we even speak it. It is on this level that we have to look for the communication paradox if we believe it to be innate: Are we in some way hard-wired to have a tendency to long for goals that are impossible to reach, to be fascinated by things that are and yet are not? Is there some sense of divine togetherness that we come programmed with, that is at some point in time to be fulfilled but keeps slipping away when we think we come close? The long history of trying to overcome distance and time through the use of media makes a strong argument for such a claim, especially when looking at the positivist discourse this search is usually framed in.

Seen this way, the topos of increased togetherness through idealised communication is but one manifestation of a central paradoxical tendency generated by our brains, albeit one of the most dominant. An imaginative account of how this paradoxical core pervades all aspects of life is found in Hofstadter's (1979/1999) *Gödel, Escher, Bach: An Eternal Golden Braid*. In the new preface in the 20th anniversary edition Hofstadter stresses the paradoxical motive for writing the book by stating that he had set out to "say how it is that animate beings can come out of inanimate matter" (Hofstadter, 1979/1999, p. xx). Introducing so-called strange loops, instances of self-reference that can often lead to paradoxical situations, Hofstadter shows that these loops can not only be found in math, perspective drawings, and music, but also—and this is his main argument—in the very essence of conscious existence itself. Without paradoxes, it seems, life as we know it could not exist. A similar argument is made by Seife (2000), who explores our uneasy relationship with zero and infinity in *Zero: The Biography of a Dangerous Idea*. Innocent as they might seem, in many situations in many times the notions of zero and infinity have been difficult to grasp, use, and explain;

to such an extent even that people have equated them with the work of God and ignored them as not allowed by God at the same time. It was through the use of zero and the infinite that Zeno could create his paradoxical race, in which Achilles never overtakes the tortoise, and it is zero and the infinite that plague contemporary physicists' current understanding of our universe. Opposite poles that invoke as well as fight the paradoxical will always be with us, because we are born out of a paradox, Seife concludes.

EP is a relatively young field, and as such has not yet found very stable ground. The argument that there is a universally active module in our brain that triggers—or is even responsible for—a life with paradoxes is therefore to be very cautiously approached. As asserted previously, it may well be that our paradoxical attitude towards communication is not the manifestation of an innate concept, but of a culturally constructed one. A helpful nongenetic argument for the paradoxical inclination is found in existentialist theories, especially in Heidegger's treatment of *Gelassenheit* (releasement) and Sartre's description of *mauvaise foi* (bad faith). Whereas the former concept deals with fully accepting one's Being-in-the-world as something that has no intrinsic goal or pregiven content, as something that can only receive its significance through the meaning one chooses to give to it, the latter is the result of *not* accepting the open-ended nature of our existence, of continuously asking "why"? and trying to find the answer outside of one's own will. Such a denial of things-as-they-are and things-as-they-happen actively feeds and sustains a two-pole system, in which paradoxes reside: There is no coincidence when everything happens for a reason, and there is no sense when everything is contingent. People with bad faith—and there are a lot, according to Sartre—often face and cannot accept the most fundamental paradox: Sometimes things are just what they are, even when they are not.

Now all these observations may seem a far cry from our day-to-day experience of using mobile phones, but whenever we transfer any information in any way we are positioned as a node in a communication network, one that exists foremost because we as humans seek contact. We hope and strive for this contact to be instantaneous, clear, under control, and ideal, even when we want to mislead or deceive the other person; if we manage to use the medium and channel in such a way that it serves our intent, the contact has been ideal for its purpose. The desire is for a technologically induced complete fulfillment, which is omnipresent in mobile discourse. There is never any certainty about having reached this ideal state, however, as we have seen. The communication paradox makes sure that something always gets in the way of pure experience.

The Return of Location

In light of this knowledge, the best way we can act, as Peters (1999) also argues, is to embrace the impossibility of ideal communication and make do with what forms of communication we *can* realise. The transcendental nature of wireless technology may at times lure us into thinking we have come close and need just a little push in the right direction, but this would be like chasing a mirage. What then are the elements of more appropriate pragmatic approaches to using new communication technology, ones that defy the urge to hand out idealised promises? Some interesting trends in recent innovative wireless concepts show that the independency of locality, the characteristic that seemingly constitutes the *essence* of mobile telephony, can be turned on its head. Where the most pure form of communication is equated with a bodiless presence and is therefore situated in a nondescriptive *anywhere*, part of the current crop of wireless projects inject exactly this sense of locality into the mobile communicative act. The resulting location based services (LBS) are put to use in a variety of ways: backseat games that merge road context with virtual content (Brunnberg & Juhlin, 2003), portable devices that support the tourist experience by supplying on the spot information (Brown & Chalmers, 2003), systems that provide virtual annotation of physical objects (Persson, Espinoza, Fagerberg, Sandin, & Cöster, 2002), and mobile phone applications that can *sense* the proximity of people on your buddy list (Smith, Consolvo, Lamarca, Hightower, Scott, Sohn, et al., 2005). Of course, all these projects in some way reflect a drive towards making things easier, quicker, better, or simply more enjoyable, and therefore do not completely escape paradoxical idealised thinking, but they do not ostentatiously try to transcend our present experience of communication by denying its inherent grounding in lived space and time.

Another area where mobile phones are undeniably making a difference without having to resort to metaphysical musings is in developing countries. By leapfrogging older communication technology—in most cases this concerns landlines that had been too expensive to be installed nationwide—mobile technology is used to quickly set up cheap networks, thereby facilitating measurable boosts to local economies and communities. The mobile networks do not instantly connect all parts of a country, but remain localised in existing urban or rural environments. This localisation is further strengthened by the fact that, less tempted to use the mobile device to mix different social locales into one heterogeneous zone, as is more the case in Western metropolitan areas, people in these developing countries tend to see the mobile more as a landline that happens to be wireless. If there would have been a landline the impact would have largely been the same, something communication theorist Jonathan Donner (2003) concurs with. He conducted several field studies in Rwanda, and found that the use of mobile

phones by Rwandan entrepreneurs enhanced their ability to do business, but also to satisfy their emotional and intrinsic needs. This is mostly due to the mere presence of a communication channel, and not to the mobile's intrinsic essence. Again, the underlying idealised implication is that appointments, deals, and transactions can occur faster and more streamlined when people are increasingly brought together in whatever way, but in cases such as those in Rwanda the results of introducing wireless technology are clearly visible and do not remain mostly theoretical.

Conclusion

With the global proliferation of mobile communication devices, a reinvigorated sense of ubiquitous connection possibilities has emerged. Covering large parts of the Earth, a networked informational skin seems set to revolutionise our way of living. The key new paradigm that is stressed in this “mobilisation” of the world is the ability to tap into an all-encompassing knowledge space, thereby making information addition, retrieval, and communication virtually instantaneous. The fundamental driving force behind this endeavour can be ascribed to a desire for establishing connections to everyone or everything in whatever way possible, a bodiless omnipresence. The radical consequences of this—almost angelic—desire are affecting traditional modes of interaction such as dialogue and dissemination.

This dream of idealised communication is subconsciously stressed by the dominant image of wireless communication that is found in advertisements, press releases, books on social change, government policies, and the like. Promises that things will get better, fuel our impatience when contemporary technology fails to deliver. In other words, the desire for ideal communication itself is part of a paradoxical system found in all layers of our existence. The dream can never be realised, and will therefore continue to recur through time. Whether we will be able to change our attitude towards this strange loop depends on its nature: If it is hard-wired into our brains, we will have to live with the paradox forever. If it is not, who knows, we might come to see mobile communication for exactly what it is, a specific but not definitive “Being” of communication.

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Endnotes

- ¹ See Standage (1998) for a comparison of the telegraph age with the rise of the Internet.
- ² See Medosch (2004) for an account of how both wireless eras are very similar in the way the technology was received.
- ³ Mobiles in Europe are predicted to exceed Europe's population in 2007 (Analysys Press Office, 2005).
- ⁴ See Clark (2004) for an account of how "educational policy, peer pressure, and most importantly, soaring use of internet-enabled mobile handsets" drive young people in Japan to use mobile phones instead of computers when sending and receiving e-mail.
- ⁵ A fitting current example of an implementation of such a cloud would be Wikipedia, which thrives on user input and moderation. Other methods of

knowledge storage and retrieval such as Google and archive.org rely on algorithms and filters, which makes them more archival than dynamic modes of knowledge preservation.

- 6 See http://www.aec.at/en/festival2003/wvx/FE_2003_PierreLevy_E.wvx for a Webcast of his lecture at the 2003 Ars Electronica conference, in which he presented the system of this formal language.
- 7 Levinson prefers to call the device a *cellphone* instead of a *mobile phone*, because “[it] is not only mobile, but generative, creative.” On top of that, it “travels, like organic cells do,” and it “can imprison us in a cell of omniasaccessibility” (Levinson, 2004, p. 11). I tend to use *mobile device*, as this category includes not only the mobile (or cell) phone, but also smart phones and PDAs.
- 8 Huhtamo names Tom Gunning, Siegfried Zielinski, Carolyn Marvin, Avital Ronell, Susan J. Douglas, Lynn Spiegel, Cecelia Tichi, and William Boddy (Huhtamo, 1994).
- 9 Eager to show that a collective intelligence does not mean a loss of individuality, Lévy acknowledges that it is important to ask, in Day's words, “how we can pass from a group mentality characterised by a modern notion of the mass (and with that, mass broadcasting) to a collective intelligence wherein persons may remain individual and singular” (Day, 1999, p. 266).
- 10 Claims that support the idea of a universal disposition towards what mobile communication is supposed to be about can be found in Katz and Aakhus (2001).
- 11 Malik (1998) criticises EP because it can be used to explain sexual and racial discrimination as “biologically meaningful.” Because our genes have not been able to keep up with cultural evolution, the EP argument goes, we are “stone age men in a space age world,” and therefore cannot help but to exhibit hunter-gatherer behaviour. Malik claims that this would completely deny the fact that culture has evolved out of natural selection too, and that we consciously make choices.