

The papers in the present volume are revised and edited versions of talks given at the conference *Seeing, Understanding, Learning in the Mobile Age*, held on 28–30 April 2005 in Budapest. This was the fifth international conference within the framework of the COMMUNICATIONS IN THE 21ST CENTURY project, a joint interdisciplinary social science project of T-Mobile Hungary and the Hungarian Academy of Sciences. The project was initiated by T-Mobile Hungary, and launched in January 2001. The aim was to gain a broad, so to speak philosophically informed, perspective on the collective and personal needs that mobile telephony fulfils, and the changes it gives rise to in society and in the life of the individual.

By 2001, the triumphal march of the mobile phone was well underway. The figure for worldwide penetration was 16%, with Western Europe reaching 70% but showing substantial variation between rather low German and very high Scandinavian percentages. The figure for North America was 42%, with the typical American scholar at the time still prone to mistake the mobile phone for a PDA with a wireless connection, while of course James Katz at Rutgers as early as 1999 organized the conference which led, by 2002, to what is still the most influential volume on mobile telephony and social behaviour.¹ The mobile penetration rate for Hungary was 31% in January 2001, with GPRS already on the horizon, and MMS about to be introduced early the next year.

At the time this volume goes to press, in January 2006, the penetration figure for Hungary is over 90%. Worldwide, there were nearly 2 billion mobile phone users by the end of 2005, which means a penetration rate of 31%. Of the almost 700 million mobile phones sold in 2004, some 250 million had built-in cameras, while, significantly, only some 80 million digital cameras were purchased. These numbers, impressive enough by themselves, reflect some fundamental conditions and changes, which I

¹ James E. Katz and Mark Aakhus (eds.), *Perpetual Contact: Mobile Communication, Private Talk, Public Performance*, Cambridge: Cambridge University Press, 2002.

will characterize here, very briefly, under the following headings: the myth of the digital divide; changing standards of politeness; mobiles becoming the dominant medium; childhood in a new key; the transformation of the social sciences. Of these topics, it is the last three the present volume focusses on in particular.

The Myth of the Digital Divide

Today there are 9 mobile phones for every 100 people in Africa. In the Democratic Republic of Congo, the figure is 2. These figures appear to be low, but in the poor world phones are widely shared. And the economic benefits of the spread of the mobile are double what they are in the rich world. As recent British research suggests,² in a typical developing country an increase of 10 mobiles per 100 people boosts GDP growth by 0.6 percent. Mobile telephony narrows, rather than widens, the so-called digital divide. The mobile is significantly less of an unequally distributed resource than the internet is. Also, generally speaking, the digital divide is much easier to overcome than the economic divide which is its cause, and much easier to overcome than the literacy divide ever was. In the end, the digital divide is a myth. Give a kid a keyboard and a screen, and illiteracy becomes a thing of the past. Provide a disadvantaged, barely literate person with access to the internet, and soon she will run a small virtual business enterprise. The thesis of Alexander Gerschenkron's classic paper from the mid-1950s, "Economic Backwardness in Historical Perspective", according to which underdeveloped countries, in order to catch up, have to directly adopt the most developed technologies without going through the intermediate phases,³ is fully born out by empirical evidence today. The most advanced contemporary ICT is mobile telephony, and I am pleased to note that the issue of the mobile phone as a promoter of economic growth in the developing world has been, with the contributions of Jonathan Donner, very much present at the Budapest conferences series.⁴

² Cf. *The Economist*, 12 March 2005, reporting on a study by Leonard Waverman of the London Business School.

³ Alexander Gerschenkron, "Economic Backwardness in Historical Perspective" (1952), in his *Economic Backwardness in Historical Perspective: A Book of Essays*, Cambridge, MA: Harvard University Press, 1962, p. 9.

⁴ Cf. Donner's papers "What Mobile Phones Mean to Rwandan Entrepreneurs", in Kristóf Nyíri (ed.), *Mobile Democracy: Essays on Society, Self and Politics*, Vienna: Passagen Verlag, 2003, and "The Mobile Behaviours of Kigali's Microentrepreneurs: Whom They Call... and Why", in Kristóf Nyíri (ed.), *A Sense of Place: The Global and the Local in Mobile Communication*, Vienna: Passagen Verlag, 2005.

Changing Standards of Politeness

In 2001, the mobile phone was still widely regarded as the very epitome of impoliteness. Even owning one was felt as a sign of bad taste. The disparaging Hungarian word for the mobile was *bunkófon*, that is “vulgarian-phone”. I have not heard that word for a long time now. The English evolutionary psychologist Robin Dunbar, whose theory of the origins of language – gossiping as social grooming⁵ – became, incidentally, one of the most fertile theories informing social science research on mobile communication, gave a talk at the 2002 Budapest conference in which he addressed the question of why men, in contrast to women, tended to publicly display their mobiles, and came up with the suggestion that what we have here is sexual advertising⁶ – if so, hardly what one would call refined behaviour. But the main problem, of course, was seen in the disturbance of customary communicational patterns: the interruption of a face-to-face conversation by a third party calling, dialogues with absent partners overheard in public places, and indeed one’s perpetual accessibility. A flood of learned studies came forth, with some of the most significant ones actually presented at the Budapest conference series,⁷ studies of lasting value, theoretical witnesses to a unique transitory stage in the history of social communication. This stage has, I believe, by now passed.

⁵ Cf. Robin I. M. Dunbar, *Grooming, Gossip, and the Evolution of Language*, Cambridge, MA: Harvard University Press, 1996.

⁶ R. I. M. Dunbar, “Are There Cognitive Constraints on an E-World?”, in Kristóf Nyíri (ed.), *Mobile Communication: Essays on Cognition and Community*, Vienna: Passagen Verlag, 2003, pp. 57–69.

⁷ Nicola Green, “Community Redefined: Privacy and Accountability”, in Kristóf Nyíri (ed.), *Mobile Communication*, pp. 43–55; James E. Katz, “A Nation of Ghosts? Choreography of Mobile Communication in Public Spaces”, in Kristóf Nyíri (ed.), *Mobile Democracy*, pp. 21–31; Joachim R. Höfllich, “Part of Two Frames: Mobile Communication and the Situational Arrangement of Communicative Behaviour”, *ibid.*, 33–51; Ronald E. Rice – James E. Katz, “Mobile Discourtesy: National Survey Results on Episodes of Convergent Public and Private Spheres”, *ibid.*, pp. 53–64; Kenneth J. Gergen, “Self and Community in the New Floating Worlds”, *ibid.*, pp. 103–114; Raimondo Strassoldo, “The Meaning of Localism in a Global World”, in Kristóf Nyíri (ed.), *A Sense of Place*, pp. 43–59; Chantal de Gournay – Zbigniew Smoreda, “Space Bind: The Social Shaping of Communication in Five Urban Areas”, *ibid.*, pp. 71–82; Kathleen M. Cumiskey, ““Can you hear me now?” Paradoxes of Techno-Intimacy Resulting from the Public Use of Mobile Communication Technology”, *ibid.*, 151–158; Joachim R. Höfllich, “A Certain Sense of Place: Mobile Communication and Local Orientation”, *ibid.*, pp. 159–168; Lyn-Yi Chung – Sun Sun Lim, “From Monochronic to Mobilechronic: Temporality in the Era of Mobile Communication”, *ibid.*, pp. 267–280.

Although the management of overlapping social spaces arising as a consequence of public mobile phone usage, as well as the continuous re-ordering of one's schedule necessitated by unremitting availability, constitute real challenges yet to be solved culturally and psychologically, the mobile is, generally, no longer felt to be a source of impoliteness. On the contrary. With the mobile phone having become the dominant communications device, we experience frustration if we cannot reach someone, far or near, by voice or SMS when the need arises. Today, the supremely impolite individual is the one not accessible on the mobile: because he or she does not have one, or does not switch it on, or is careless in checking messages. An asocial creature, disturbing the normal flow of human communication.

Mobiles the Dominant Medium

Combining the option of voice calls with text messaging, MMS, as well as with e-mail, and on its way to becoming the natural interface through which to conduct shopping, banking, booking flights, and checking-in, the mobile phone is obviously turning into the single unique instrument of mediated communication, mediating not just between people, but also between people and institutions, and indeed between people and the world of inanimate objects. Furthermore, the mobile is today emerging as the dominant medium in the sense of that strange singular in the plural, "media" – both as *mass media* and *new media*. The term "mass media" was coined in the 1920s with the advent of nationwide radio networks, mass-circulation newspapers, and magazines. It designates the whole body of media reaching large numbers of the public via the printed press, movies, radio, television, and most recently the World Wide Web. The World Wide Web also qualifies as a member of the group "new media", meaning that it offers personalized, customized, and grass-roots content. It relies, in a word, on *interactivity*. Clearly, the mobile phone is the new media *par excellence*. It is interactive – indeed, being interactive *and* person-to-person is its primary vocation. And it is, or very soon will be, a mass media: people do indeed yield to the attraction of watching television (and of course of listening to radio, not to speak of reading newspapers) while on the move.

Childhood in a New Key

The age group perhaps most deeply affected by the rise of the mobile is that of children. And with the percentage of even very young users becoming ever higher, warning voices, too, have become louder – reach-

ing a shrieking level by the beginning of 2005. The favourite bogey is the image of children not acquiring, or losing, the ability to conduct full-fledged face-to-face conversations, due to their having become so accustomed to mediated communication. Of course, this is patent nonsense. Children handle, pass around, play with, mobiles; the mobile device acts as a centre organizing their face-to-face social space. Clearly, they also use mobiles to communicate with each other, which is an entirely felicitous phenomenon. Ubiquitous communication fulfils a deeply human urge, and children especially suffer if deprived of the possibility of keeping in touch. This is an issue the 2005 Budapest conference particularly focussed on. Also, a number of talks there analyzed the topic of a new learning environment for children (and indeed for us all) emerging as a consequence of access to not just scattered information, but indeed to pertinent knowledge, anytime, anywhere. Recall Dewey's argument – Mike Sharples in his paper in the present volume refers to it in detail – that we need schools, artificial educational environments, because the young can no longer move around in the world of adults and thus learn spontaneously.⁸ It appears that this state of affairs is today rapidly changing. The medium in which the young play, communicate, and learn, is increasingly identical with the world in which adults communicate, work, do business, and seek entertainment. The mobile is clearly creating an *organic learning environment*.

The Transformation of the Social Sciences

Having become the dominant medium, the mobile phone today is no longer merely a particular, or indeed exotic, topic of the social sciences, as it certainly still was in 2001. Instead, by constituting the very communicational environment of the social scientist, the mobile has actually transformed the social sciences themselves. Hungarian social science was especially well positioned to undergo, and perhaps even to play a role in, this transformation, due to the early interest in the impact of communication technologies on the organization of people and ideas that was present in this country in the 1920s and 1930s: let me just refer to the work of József Balogh on silent reading, or the influence paleographer István Hajnal and

⁸ I have touched on this theme in my papers “Towards a Philosophy of Virtual Education”, in Marilyn Deegan and Harold Short (eds.), *DRH 99*, London: King's College, 2000, pp. 107–131, and “Towards a Philosophy of M-Learning”, in M. Milrad et al. (eds.), *Wireless and Mobile Technologies in Education*, Los Alamitos, CA: IEEE Computer Society, 2002, pp. 121–124.

film theorist Béla Balázs had on McLuhan's Toronto circle.⁹ As I wrote in my preface to the volume *Mobile Democracy*, the arrival of McLuhan's ideas in Hungary from the 1960s on amounted, really, to a homecoming. When the COMMUNICATIONS IN THE 21ST CENTURY project was launched by T-Mobile in 2001, the stage was set for Hungarian social science, and in particular for Hungarian philosophy, to resume large-scale research at the point where Hajnal had finally broken off in the early 1950s. In the present volume, both my colleague Zsuzsanna Kondor and myself are exploiting Hajnal in our papers. Furthermore, both Tamás Demeter and myself will be touching on Balogh. And let me single out some points in the volume where the phenomenon that I here label as "the transformation of the social sciences" is particularly conspicuous: Maurizio Ferraris pursuing a fascinating new philosophy-of-the-mobile argument in the wake of Derrida; Brook making use of, among others, Dennett, Dretske, and Putnam; Preston and Hrachovec bringing in Wittgenstein; Sharples reviving Dewey and turning to Gordon Pask and Michael Cole; Benedek taking issue with Hannah Arendt; Mifsud going back to Vygotsky, J. J. Gibson, Hans-Georg Gadamer, and Clifford Geertz; Peschl employing Popper and Kuhn; Srivastava applying Michael Polanyi, Roland Barthes, Jean-Paul Sartre, and Jacques Lacan; Richard Coyne and Martin Parker utilizing Derrida, Saussure, Wittgenstein, Rousseau, and Kant; Kato referring to Gregory Bateson, Margaret Mead, and Walter Benjamin; Ganea and Necula using Roman Jakobson, Karl Bühler and Bronislaw Malinowski; Katz drawing on Peter L. Berger, Gabriel Marcel, Walter Benjamin, Oswald Spengler, and Lewis Mumford; and Bertschi capitalizing on Max Weber – and on Katz. To my mind, this volume constitutes a real step forward on the road towards mobile telephony becoming both a mainstream subject of, and a major conceptual environment for, the social sciences.

At the conference *Seeing, Understanding, Learning in the Mobile Age*, eighteen plenary speakers gave talks. Some forty talks were delivered in the parallel sessions. Alas, there was no way to include all the talks in the present volume. The volume begins, as the conference did, with the paper by Ian Hacking, followed by that of Tamás Demeter, both sceptical of the

⁹ See my paper "From Palágyi to Wittgenstein: Austro-Hungarian Philosophies of Language and Communication", in Peter Fleissner and Kristóf Nyíri (eds.), *Philosophy of Culture and the Politics of Electronic Networking*, vol. 1: *Austria and Hungary: Historical Roots and Present Developments*, Innsbruck: Studienverlag / Budapest: Áron Kiadó, 1999, also available as a digital document at the address http://www.hunfi.hu/nyiri/Palagyi_to_Wittgenstein.pdf.

view that the mobile telephone has something like an epoch-making role. By contrast, the two chapters the volume ends with, those by Katz and by Bertschi, describe the mobile as having achieved a paramount spiritual and cultural significance. Hacking stresses in particular that mobiles as transmitters of *pictures* are a conservative, rather than a revolutionary force; the papers by Kato and by Döring et al. suggest a different image. Brook, as well as Preston, do not think the mobile phone alters our cognitive architecture in any significant way; Kondor and myself believe they do. Peschl and Srivastava ask in what ways *profound understanding*, as contrasted with superficial acquisition of mere information, can be maintained, and indeed enhanced, in the digital networked environment; I argue that this environment should help us, in any case, to free ourselves from the phoney philosophical ideal of depth.

The present volume does not follow the convention of indicating, for internet references, the date when authors last accessed the site they quote. Rather, each internet reference has been checked by the editor; all internet references contained in the volume were valid at the time the material went to press.