

Opening: Our Networks, Our Lives

Wireless communication networks are diffusing around the world faster than any other communication technology to date. Because communication is at the heart of human activity in all spheres of life, the advent of this technology, allowing multimodal communication from anywhere to anywhere where there is appropriate infrastructure, raises a wide range of fundamental questions. How is family life affected by the ability of its members, including children, to pursue fairly independent activities and yet be constantly in touch? Is the office on-the-run coming into existence when people can reach their working environment and their professional partners from anywhere and at any time? Is the classroom transformed by the ability of students to communicate simultaneously face to face, with their laptops, and with their cell phones? Is the technological ability to perform multitasking anywhere further compressing time in our hurried existence? Does mobile communication favor the development of a new youth culture that makes peer-to-peer networks the backbone of an alternative way of life, with its own language, based on texting and multimodal communication, and its own set of values? How distinctive is this youth culture vis à vis the culture of society at large? And is it an age-specific state of mind or the harbinger of new patterns of behavior?

Are mobile phones expressions of identity, gadgets of fashion, tools of life, or all of these things? Mobile communication is said to enhance the autonomy of individuals, enabling them to set up their own connections, bypassing the mass media and the channels of communication controlled by institutions and organizations. How real is this autonomy? Are social constraints reintroduced in the new communication patterns prevailing under the conditions of wireless technology? And how is this autonomy reflected in the sociopolitical realm? Are “flash” political mobilizations, often reported in the media as effected by people’s mobile communication power, truly spontaneous? And how much do they actually modify power

relations in our society? Are time and space being transcended in social practice because of the ability to do everything from everywhere thanks to this capacity for ubiquitous, perpetual contact?

What are the new inequalities introduced by differential access to the infrastructure of wireless communication in a world based on connectivity? Can developing countries leapfrog the deployment of fixed telecommunication systems, jumping directly into a global communication system based on satellite and wireless telecommunication systems of different sorts? How much is this new connectivity contributing to development in an interdependent world in which knowledge, information, and communication are the key sources of wealth and power? How does the interplay between new communication technologies and people's lives vary according to cultures and institutions in different regions of the world, and among different social groups? Do we find emerging patterns of behavior and of social organization that seem to be common to various social contexts, as they are associated with the new forms of multimodal, wireless communication?

The answers to these questions affect our lives. They also condition public policies, business strategies, and people's decisions about deploying and using a new, powerful technological system of communication. Yet, because of the speed of technological change, and an eagerness to win competitive advantage in the new system of communication, decisions are made all over the world without much understanding of the social, economic, and political implications of wireless communication technologies. The assumptions underlying these decisions are often unwarranted.

Indeed, we know from the history of technology, including the history of the Internet, that people and organizations end up using technology for purposes very different from those initially sought or conceived by the designers of the technology. Furthermore, the more a technology is interactive, the more it is likely that the users become the producers of the technology in their actual practice. Thus, society needs to address responsibly the questions raised by these new technologies. And research can contribute to providing some answers to these questions. To look for these answers, we need knowledge based on observation and analysis. Rather than projecting dreams or fears of the kind of society that will result in the future from the widespread use of wireless communication, we must root ourselves in the observation of the present, using the traditional, standard tools of scholarly research in order to analyze and understand the social implications of wireless communication technology. People, insti-

tutions, and business have suffered enough from the prophecies of futurologists and visionaries who promise and project whatever comes into their minds on the basis of anecdotal observation and ill-understood developments. We take exception to such approaches.

Instead, the purpose of this book is to use social research to answer the questions surrounding the transformation of human communication by the rise and diffusion of wireless digital communication technologies. Our answers, however tentative, will rely on the stock of available knowledge on this topic in different areas of the world. While gathering our data, we would have preferred to consider exclusively information and analyses produced within the rigorous standards of academic research. In fact, this constitutes a good proportion of the material examined here. However, because of the novelty of the phenomenon and the slow motion of academic research in uncovering new fields of inquiry, the amount of comparative knowledge on this subject is too limited to grasp empirically the emerging trends that are transforming communicative practices. Thus, we have extended our data sources to reliable media reports and to statistics and elaboration coming from government institutions and consulting firms.

We have made every possible effort to assess the validity of the sources employed and state clearly the limits of our knowledge in each particular instance. Overall, we believe that the analysis presented in this book is a reasonably accurate representation of what is happening in the world at large, as it results from the hundreds of studies that we have consulted from multiple sources, with the help of several institutions and organizations and of many experts in the field. Following a standard methodological rule in social science, when a pattern of conduct (for example, the substantial enhancement of individual and collective autonomy by wireless communication capability) repeats itself in several studies in several contexts, we consider it plausible that the observation properly reflects the new realm of social practice. We have applied this principle to all key topics that characterize the field of inquiry on wireless communication. As a result of our work, we have identified the emergence of a pattern of communication linked to the new technological conditions: a pattern whose contours will appear gradually, chapter by chapter, throughout this book, until it takes full shape in a conclusion that will bring together the analytical threads found in each of the themes under study.

The perspective of our analysis is global because so is the object of our inquiry: wireless communication. Yet there are limits to the information available in some contexts, as well as limits derived from our partial

knowledge of languages, in spite of the multicultural background of the authors of this book and the help we have received from assistants and colleagues in other languages, such as Japanese, Korean, and Russian. The first chapter provides a global overview of the diffusion of wireless communication. Yet, in the subsequent, analytical chapters, the different regions of the world have an uneven presence, depending on the stock of knowledge accumulated in each of them, and made available to us. Thus, we know a good deal about Norway because of the quality of Norwegian research in this field, while we know little about Nigeria because of the scant reliable evidence on this important country. Furthermore, in spite of having consulted hundreds of studies on all regions of the world, we have certainly not exhausted current information on the matter. However, *our aim is primarily analytical*, not encyclopedic – among other things, because the diffusion of wireless communication is proceeding so fast that purely descriptive data may soon become obsolete. *What we intend to do in this book is to construct an empirically grounded argument on the social logic embedded in wireless communication, and on the shaping of this logic by users and uses in various cultural and institutional contexts – an argument whose analytical value should stand by itself.*

Our emphasis on a cross-cultural approach comes essentially from our determination to avoid ethnocentrism in building this argument. The limitation of our work is that we cannot analyze what has not been studied, and we adamantly refuse to speculate without a minimum level of reliable evidence. We are dependent on the work of other researchers. So, as some important questions have barely been touched upon by research, this is reflected in our analysis. We believe, nonetheless, that by assessing empirically and analytically the emergence of wireless communication patterns at an early stage in the development of the new communication system we can help to build a cumulative body of knowledge that will evolve with the technology itself. Furthermore, these early studies, and our assessment of them, may be socially useful, as people, civil society, business, public services, and policy-makers adapt their communication technology strategies to the demands of society.

Let us provide you, the reader, with a road map for this book. We start (chapter 1) with a statistical overview of the diffusion of wireless communication in the past decade in different areas and countries of the world, while trying to account for differences in the rate of diffusion. Then (chapter 2) we present data on the patterns of social differentiation in the diffusion of the technology, and explain the causes and consequences of such differentiation: who has access to wireless communication, who has

not, who has less, and why. Next (chapter 3), we study the social uses and social effects of wireless communication in different domains of human activity, grouped under the heading of “everyday life”: from family life to the transformation of work, and to the emergence of social problems in the communication networks, problems such as security, surveillance, spam, scams, and digital virus epidemics.

We then enter into specific consideration of some major themes that have clearly appeared to be essential in the course of our research. The first one (chapter 4) is the deep connection between wireless communication and the rise of a youth culture (what we call a mobile youth culture) in most of the areas under our observation. The second theme (chapter 5) refers to changes in the practice of time and space resulting from wireless communication. The third (chapter 6) is the process of transformation of language by texting and multimodality. The fourth (chapter 7) is the growing importance of wireless communication in the processes of sociopolitical mobilization, particularly outside formal politics, a topic that we have considered by focusing on case studies of protest movements in a variety of contexts. The fifth theme, which we treat in some depth (chapter 8), is the relationship between communication and development in the framework of the new technological paradigm, focusing on developing countries. Finally, we summarize and elaborate the main trends resulting from our observations in a concluding chapter that provides tentative answers to the questions raised in this introduction.

Each chapter blends into the analysis data and research findings from a wide variety of areas and cultures across the world. We have tried to identify the specificity of each context in which the practices have been observed. But we have also found common trends and similarities across cultures that vindicate the singularity of wireless communication as a sociotechnical process. This tension between the local and the global, the cultural and the technological, is present throughout the analyses presented in our book. Therefore, for each topic we move freely from Europe to China, from the United States to Japan, from Africa to Latin America, when we find recurrent themes that manifest themselves in a variety of languages and cultures. The division into chapters follows a thematic logic, but it results in a great deal of asymmetry in the lengths of different chapters. This is simply because of the difference in the amount of research material found on each theme. We have kept the specificity of each theme, regardless of the length of each chapter, to emphasize its importance, and to call to the attention of researchers important topics on which knowledge is still insufficient at this point.

As this book relies on hundreds of references and tables, we have made an effort to make it readable by placing most of our information in appendixes which can be found on the website of this book at MIT Press (http://mitpress.mit.edu/Castells_Mobile). We have also indicated in the text the specific sources that support our analysis. Thus, interested readers may consult the full set of data, methods, and references beyond the print boundaries of this book by reaching to its virtual extension on the Web. Welcome to the hypertext.

Finally, throughout this book we refer to the concept of the “network society,” and use the expression “the mobile network society,” to emphasize the diffusion of the networking logic in all domains of social life by means of wireless communication technology. For an understanding of the network society in general, and for discussion of network theory, we refer to previous work by researchers in this field (Castells 2000a, b, 2004; Monge and Contractor 2003). The mobile network society is simply the enhancement of the social structure conceptualized as the network society by new, wireless communication technologies. For the specific nature of this enhancement, we refer to the analyses presented in this book.

Altogether, we hope that this research effort, within the limits of our current knowledge, will contribute to setting a tone for the future analysis and assessment of a fundamental trend that is redefining the relationship between communication, technology, and society around the world by unwiring the networks of our lives.