

The New Frontiers of Mobile Communication

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**The New Frontiers of Mobile Communication,  
between Consume, Collaboration  
and Control of Digital Content**



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## Introduction

More than two billions people daily use their mobile phone, during working hours or in their free time, at home and on the move. Considering its young age and high penetration rates, the mobile phone is the technological innovation that characterizes most the contemporary society, even more than Internet, the other important result of the digital revolution started only fifty years ago. Actually, these two media have much in common: in fact, they can be both used as communication tools. However, Internet has an advantage, as it could also be used for information retrieval, personal information management... Unfortunately, the Internet running on desktop computers was bounded to the physical location where it was installed. Today, thanks to the media convergence process, the boundaries between old and new media are becoming less evident.

The mobile phone, created as a communication tool, wireless evolution of the landline phone, has become our *personal medium*, mediating between real and digital world and being able to record, store and play digital fragments of our lives. With its huge number of functions, today's mobile phone is also acting as a camera, a watch, a calendar or a console, leading us even to reconsider its name, as *phone* is only one of its multiple functions. During its short history, the mobile phone has gone through phases of growth, in terms of users, revenues, and device complexity. Today, the mobile market is saturated and revenues are not growing much, for the reduced cost of calling and delayed adoption of 3G services. This phase is similar to a "*crisis of identity*", which involves all players who have brought the mobile to success: mobile operators, service providers, constructors and end users.

Some years ago huge investments were done to develop the third mobile generation (3G). According to market analysts, such investments would have been quickly recovered, thanks to the creation of a new market connected to the Mobile Internet and the value-added services (VAS); the user adoption of 3G was not so quick and successful as reports predicted, and now companies are more cautious and are evaluating viable solutions to exploit the huge potential offered

by new mobile technology. At the same time, device constructors continued to release new products, which can satisfy every segment of the market. Offering in a single device a digital camera, recorder, Mp3 player and GPS navigation system, new mobile terminals ring a bell about *Swiss-knives*, which incorporate many functions, without offering the same quality of the item they replicate. For example, would anybody choose to watch his favorite TV-series on the phone or on a regular television while being at home?

The uncertainty of the mobile market spreads also to the end users, who are often confused and do not fully understand the reasons behind new products or services. As an old Italian proverb says, they choose “*not to leave the old road for the new one, because they know what they lose and don't know what they encounter*”. However, a way out seems to come from the same end users: the recent success of the *Social Web*, or Web2.0, demonstrates that a real opportunity to enrich the communication experience through collaborative technologies exists. The added value comes from the utilization of digital content, often created by the users themselves and shared with other users through networks of trust. This phenomenon, seen in the mobile context, adds a new meaning to the mobile phone, which becomes not only a tool to *consume* information, but ideal platform for *creating* and *sharing* digital content, in any form (text, photos, videos, audio recordings). In addition to the “old” sms, simplest example of asynchronous communication in a mobile device, we have today a number of powerful tools for group communication, such as blogs, podcasts and vlogs. These applications, considered from the wider perspective of the community of residence, allow a more active participation to public life and self-organization focused around shared interests and beliefs, leading to the realization of *eCitizenship* projects.

The acknowledgment of the new role of the user, which already happened in Internet, would also have economic consequences: considering users in the value chain of digital content, new business models and services could be introduced. The success of 3G and UMTS can be achieved making this change happen. As Rheingold (2002) pointed out in his best-seller *Smartmobs*,

technologies of cooperation based on the paradigm “create, share and use” represent the new frontiers in the development of mobile communication. Their success will also depend on the political and economic decisions made by governments and major companies. As a matter of fact, our future will be determined also by the role given to wireless technologies in the development of the Knowledge Society. In reality, many evidences show that, despite good intentions, these new technologies may be used more to control the population, restricting individual rights such as privacy, rather than to support democracy.

At the same time multinationals, after launching in the market powerful tools and software to create, copy, edit and distribute digital content, often in very creative and original manners, are now afraid of losing profits and are trying to strengthen copyrights laws and control the flow of Information in Internet.

Besides the commercial perspective, the Open Source philosophy is gaining consensus. This way of thinking, which originally gave birth to Internet and many other innovations, has origin in the *hacker ethic* and consider Internet as a public good, which cannot be controlled by anyone. Aware of the risks that a society controlled by few companies may generate, academics have proposed an adjustment to the existent law based on the concept of “*free culture, free society*”, which best result is achieved through the system of Creative Commons licenses, extension of Stallman “*copyleft*” concept to information in digital form.

Considering as primary focus the Italian mobile market, laws and evolution of mobile services, this publication wants to deal with all the topics presented above, starting from a general analysis of the different meanings of the Information Society. In the first chapter, we also present the role of wireless technologies in the development of eDemocracy projects in Italy.

The second chapter gives an outline of the mobile telephone history, from its birth, when it was just considered as wireless version of the landline phone, to his new modern version, in which it plays a central role in the multimedia convergence process. Beyond its technical evolution, we also consider the birth and growth of the Italian mobile market and the recent, but growing interest of the scientific community for the mobile phone as object of study.

In the third chapter we analyze the mobile device and its various characteristics. Through the metaphor of the Swiss knife, we investigate how the various functions are linked to the basic properties of the mobile phone, which are portability, connectivity and personalization.

In the following chapter, the central one, we analyze mobile services, trying to understand which services are more suitable to 3G (and beyond) terminals. In particular, seen the media convergence process, we make a parallel between mobile services and the Internet, examining its evolution and describing in detail the Web2.0 phenomenon. Finally, we suggest the application of the basic concepts of Web2.0 to the mobile environment. Obviously, services with new schemes require new business models; we discuss in the fifth chapter the main commercial offers of the Italian operators, discussing where there is need for innovative solutions and which conditions should be met.

The huge potential for new services and business will never be realized without finding proper solutions to the users' worries connected to the loss of personal privacy. This topic, treated in the sixth chapter, is faced by studying the European and Italian legislation of communications and personal information treatment. In this chapter are also speculate, in a more general context, on the narrow boundaries between individual freedom and collective security.

In computer and mobile networks, identity, actions and creations take the form of digital content. Who owns and has the right to share, trade or modify them? The seventh chapter analyzes the very current issue of copyright related to digital contents, which is a common and crucial point in any data service. Finally, the last chapter entitled "*the principle of Cosix*" briefly considers the evolution of mobile services from the final user's point of view, giving indications for a possible further development of the society in future.

## References

Rheingold, H. (2002). *Smartmobs, the Next Social Revolution*, Basic books, 2002.