## Introduction to Evolution and Regulation of Communication Ecosystems

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The arena of telecommunications, Internet-empowered interaction, and mobile network technology keeps expanding to encapsulate an ever widening galaxy of customized and utility communication services, that is, specialized applications and the web at large. New challenges are on the horizon as the web makes the transition from the wired Internet to a new model based on ubiquitous access underpinned by a vast array of mobile terminals and the cloud infrastructure. The persistently drastic phenomenon of economic and technical change is transforming economic and social life as well as adding to the pressure on the existing regulatory frameworks.

This chapter addresses a cluster of issues related to mobile technology evolution, telecom industry convergence, and the development of the services market. The confluence of these trends creates uncertainty, fast-paced evolution and a growing potential for economic growth. The European Information Society is faced with new opportunities for policy change and this chapter addresses the emerging new context from a variety of perspectives.

Section 2 on the "Evolution and Regulation of Mobile Ecosystems: European Information Society Policies for the Mobile Search Domain" by S. Ramos, J. L. Gómez-Barroso, and C. Feijóo maps the evolution of the mobile ecosystems by focusing on the particular case of mobile search domain. Analyzing the sector from the angles of the supply side, users' demand and supporting infrastructure this section reaches out for a portfolio of policy tools and approaches.

Section 3 on "International Roaming of Data Services: The Need for Regulation" by M. Falch moves on to acknowledge the importance of the existing national regulations in an environment of deep interconnection and market monitoring (from the angle of competition policy and privacy protection data). Special issues involve how to handle localization data, the spread of M-applications to other sectors, and peer-to-peer mobile services. The features raise questions concerning access, pricing, unbundling, and market-structure that cut across the mandates of different agencies and invite a review of regulation activities as a whole.

"Mobile Regulation for the Future" in Section 4 by Z. Kósa stresses that market issues for international roaming services create a techno-economic realm differing in many ways from markets for other mobile and fixed services. The section examines the supply and demand dynamics in the retail and wholesale segments to illustrate the complications that characterize this dimension of the contemporary telecommunications puzzle. It appraises the recent policy life-cycle and observes to what extent it moved away from more or less objective economic evidence toward regulation based on political negotiations between national stances parties with conflicting interests.

Finally, Section 5 on "Trademarks as a Telecommunications Indicator for Industrial Analysis and Policy" by S. Mendonça and R. Fontana offers insights on how new indicators may guide policy in tracking the dynamics of the telecoms sector. This section uses a new database on Community Trade Marks as a source of empirical understanding on the industrial dynamics and competition trends in the telecom sector in the European market.

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