Chapter VII

Fostering Innovation in Networked Communications: Test and Experimentation Platforms for Broadband Systems

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Abstract

This chapter examines how to foster innovation in networked communications by setting up broadband environments for joint testing and experimenting. It identifies six types of test and experimentation platforms (TEPs), based on criteria such as technological maturity, openness, and focus. The typology is matched with the
characteristics of real-life TEPs in three European benchmark countries, that is, Finland, The Netherlands, and the UK. The authors argue that the creation of open platforms furthers the interplay between business actors in the value chain, helping to tackle the systemic failures associated with broadband innovation. They demonstrate that the strategic relevance of TEPs lies in the extent to which networked communications between all stakeholders, including users, is made possible in the establishment of a trusted setting that resembles real-life situations (as closely as possible) and in the support of non-linear, mutual shaping innovation processes with semi-mature technology.

Introduction

Modern mediated communication is networked through various systems composed of complementary artefacts such as infrastructures, devices, services, and applications. While most research on networked communications recognises the mutual influence between these artefacts and the communications enabled by them, it has a marked tendency to take changes (in other words: innovation) in these artefacts for granted. As a result, this research has generally paid little attention to the optimal preconditions and circumstances for fostering “systemic” innovations of these artefacts, even though such innovations can be expected to have deep repercussions on the nature of communications mediated by them.

Innovation in broadband systems and services is the primary example of such systemic innovation currently taking place. In a digitised and converged world, an increasing part of mediated communication is happening via fixed or wireless broadband systems, that is, systems that enable “rich” multimedia communication. Innovation in broadband systems and services is regarded as one of the cornerstones of strategies and policies to innovate and ameliorate networked communications in general (see also the following sections). This chapter examines whether current approaches to achieve this do justice to the goals and specific characteristics of networked communications. The objective is to find out how to implement innovation in broadband technologies and applications, in order to optimise networked communications among people and communities. In this way, broadband innovation is defined as innovating multimedia and high bandwidth technologies and applications in close interplay with social, economic, and policy developments.

It is increasingly apparent that broadband innovation requires experimentation with a large variety of technologies, and between a wide range of potential service providers and users, from early on in the development phase. That is, the innovation process of broadband technologies and services is to be regarded as a process
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