

▼ Introduction to Community Wireless Networks for Development Minitrack

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The goal of Community Wireless Networks (CWN) for Development minitrack is to address the impact of the emerging community (municipal) wireless systems on social and economic development in today's society. Community wireless systems represent a community-driven solution that provides affordable or free ubiquitous broadband wireless access to all community members. Such networks take advantage of the free frequency, the increasing enhancement of wireless standards, and the social capital in the society. Social capital, in this context, includes donations, academic expertise, open source software, recycled equipment, location hosting, and voluntary work. These systems have grown to complement the internet service provided by telecommunication companies and a supplement of the government efforts to integrate the digital revolution in all aspects of everyday life. However, developing such local connectivity solutions have raised many technical, social, economic, and legal issues.

The minitrack also brings the awareness of community wireless networks as a driver for economic development and the related issues. Hundreds of community wireless networks have been established across the world to enhance government services, improve civic engagement, bridge the digital divide, and improve the business environment. Community wireless networks have emerged to integrate and employ local and community resources via collaboration between volunteers, local businesses, local governments, and community activists to build such systems. These systems may be the only viable solution for delivering e-government, e-learning, e-health, and entertainment services particularly for remote and underserved areas. Such areas lack the commercial incentives for telecommunication companies to deploy IT infrastructures.

The first paper in the minitrack, "Discursive Deployments: Mobilizing Support for Municipal and Community Wireless Networks in the U.S." by Rosio

Alvarez and Juana Maria Rodriguez examines Municipal Wireless (MW) deployments in the United States. In particular, the interest is in understanding how discourse has worked to mobilize widespread support for MW networks. The paper provides an investigative view for understanding the discourse on MW networks using interviews and surveys. The study incorporates social parameters to analyze and understand the impact of technological developments in the domain of community wireless networks. The authors explore how local governments discursively deploy the language of social movements to create an understanding of networking needs in their own communities. The study highlights the significant role of intermediation in developing community networks and concludes that community participation should not be limited to particular development stages.

The second paper of the minitrack, "Development of Kutztown Community Network" by Dong-Hee Shin investigates the development of a wireless network in Kutztown Community. It explores the design, discourse, and social interactions within the developed network. In this project, the government used tax revenues to support the development of a broadband network in a small community. The study employs a case study approach to investigate how the community network was designed and how the Kutztown community participated in the network development. The use of public funds to support such network provides another model for establishing wireless community networks. The findings show that the lack of sufficient societal input into the various phases of the development process threatens the viability of the network.

Effective integration of technical aspects and social and legal factors remains the most challenging aspect of the development of community wireless networks. We hope that the articles included in this minitrack provide another step towards achieving this objective.