

global economy. Similarly, ubiquitous Internet access will not transform a digitally divided city—such as Philadelphia—overnight. Nevertheless, it will lay a foundation that may enable the city to make strides toward eliminating the digital divide. Even if projects such as Wireless Philadelphia are successful at providing low-cost Internet access and even if they follow up with training, low-cost or free computers, community support and involvement, it will take a long time to show discernable change. This problem is further exacerbated because there are no reliable measures for gauging the true social and economic impacts of MWNs.

MWNs need insulation from unpredictable large-scale external forces. MWN projects are subject to unpredictable and large-scale social and political forces. For instance, in the United States, most projects are vulnerable to the four-year election cycle. What is acceptable at the community level may not be so at the state or national level. For instance, 10 MWN projects in the Netherlands were investigated by European Union commissioners for receiving “illegal state subsidies” (Taaffe, Dux, and Monegan 2005). In Philadelphia, the insulation from external forces was partly achieved by creating Wireless Philadelphia as a nonprofit that has its own funding source and management and is separate yet accountable to the city. However, according to its management agreement with the city, Wireless Philadelphia still has to submit its budget to the city for approval and comment.

The technology of MWNs will change. A recent new development, called broadband over power lines, allows Internet access to be supplied through power connections. Because buildings are already wired for power, this technology could remove the cost advantages of deploying wireless networks. In addition, approximately 90 percent of the telephone lines in the United States are currently DSL capable (Hearn 2006). DSL prices are falling rapidly and currently, with connections now available for around \$15 per month. Lower-income consumers are typically more price conscious, and if the cost of DSL falls below the cost of wireless connectivity, consumers will likely go with the cheaper solution. A change in technology does not necessarily remove the underlying rationale for MWNs. Future projects will need to plan around such developments and create structures that are focused on the underlying need of the municipality rather than the capabilities of the specific technology. It is unclear whether the structures created in Philadelphia would survive a change in technology and whether Wi-Fi technologies will still be in use 10 years from today.

Conclusions and Future Research

Throughout history, there has been an ongoing debate about the appropriate role and scope of government. In the past, governments have often acted as catalysts to usher in new innovations. The demonstration of the first telegraph was funded by the U.S. government, and the Internet was created under a U.S. government program. Many high-technology and medical advances are derived from government-funded basic research. In each of these cases, government intervention has led to significant economic and human capital growth and resulted in large-scale transformations in society. However, such interventions are increasingly being questioned because of renewed faith in market-based mechanisms, the failure of some government-originated initiatives, and the burden of substantial government fiscal debt. It is increasingly difficult for governments to play the role of a catalyst in achieving technological and social objectives.

When the city government of Philadelphia announced its wireless initiative, it faced strong opposition from stakeholders who objected on the grounds that the city was in poor financial condition and that such a project would be better addressed by the private sector. Nevertheless, the city was undeterred and succeeded in facilitating collaboration among stakeholders and engaging citizen support to start the project. The city variously played the role of a champion, policy maker, partner, consultant, project manager, referee, and capacity builder. It removed barriers and provided incentives and a legislative framework to help target funding, ensure resources, and provide stability to the new infrastructure. Although it is fair to say that the Philadelphia wireless project is a success story that illustrates how governments can act as catalysts to initiate change and follow through on implementation, it is still too early to say whether the project has met its objectives. Even if the project is fully implemented and is able to attract sufficient subscribers, two major challenges remain.

The first challenge is how to measure success. There are no reliable social and economic measures of the digital divide that can be easily applied to the Philadelphia context. Simply counting subscribers will not necessarily show success. It will not necessarily show that those subscribers are now bridging the divide or that the health of the region is improving. There is a need for basic research to carefully delineate and validate appropriate social and economic measures of success. The second challenge is identifying the most

appropriate governance structure. We do not yet fully understand the implications and efficacy of the different public, private, and combinatory governance models that have been discussed. It is unclear whether the hybrid model in Philadelphia will ultimately be superior to another arrangement. There is a need for research to test and evaluate the different models based on metrics such as cost, social impact, effectiveness, and other measures. We believe that addressing these two challenges represents an important next step in fully understanding the evolution and impact of MWNs.

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Note

1. MWNs are based on a point-to-multipoint link between a base station and a subscriber's equipment. A base station is an outdoor antenna connected to the Internet that sends data wirelessly to subscriber equipment, such as laptops. Typical use of an MWN employs the built-in wireless card that is included in most laptops to connect to the Internet.

Chapter 10 Review Questions

1. Briefly, how do Thomson and Perry define the concept of collaborative public management? What do they describe as the essential five dimensions? In your view, do they make their case? Why or why not?
2. Does the case, "Government as a Catalyst" ultimately support or contradict the Thomson and Perry argument? Why or why not? On the other hand, does the case offer a different, even more convincing model?
3. What lessons are drawn at the end for this case study for practitioners? In your opinion, are they useful for public managers on the firing line? Why or why not?
4. There is a repeated public assertion—evidenced in the popular press and in political campaigns—that government is ineffective, inefficient, and uneconomical, and thus needs to become more businesslike. In your opinion, what are the sources and causes of this repeated public outcry? According to the authors, why is it an inaccurate perception? Or, why is it only partly correct?