

What Is Community Technology?

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This book is about community on three levels¹—people united by geography (Washington State), attachment (the Communities Connect Network), and common interest (community technology)—a trinity united with the goal of empowering all people through digital inclusion.

March 31, 2008, was a day like no other in Washington State or even across the country for anyone involved in community technology, information and communication technology (ICT), the digital divide, the information have and have-nots, digital inclusion, digital inequality, information poverty, or public access computing. It marked a watershed moment as Washington State joined other states such as California, Illinois, Minnesota, and Ohio² that have enacted laws or regulations supporting community technology. As Governor Christine Gregoire signed Senate Bill 6438 (see Appendix A), this ground-breaking law defined community technology in the State of Washington, making community technology programs eligible for state funding and providing recognition of the contributions they have made over the years to the individuals, families, and communities they serve. The bill also provided \$500,000 in state funds to assist community technology organizations in Washington in achieving their missions over the following year.

The quest to bring legal definition to community technology in Washington State is the story of promoting digital inclusion and has far-reaching implications because it is about communicating impact. In the U.S., one can argue that it began in the mid-1980s when academics and civilians started using the internet—or USENET (Unix Users Network), more specifically—changing what primarily had

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been the domain of the U.S. military, developed as ARPANET in the 1960s (Zakon, 2008). As Baron (2008, p. 13) explains, “Homegrown bulletin board systems (BBSs), carried over telephone dial-up lines, connected clusters of friends and helped create the earliest online social communities. While the best known of these groups was the WELL (Whole Earth ’Lectronic Link), the number of online communities quickly mushroomed.” A burgeoning example of attempts to promote community inclusion in the 1990s were Free-Nets, “online community networks that provided the public with one-stop shopping using community-oriented discussions, question-and-answer forums, access to governmental and social services, along with local information, email, and internet access” (Pettigrew, Durrance, & Unruh, 2002, p. 895; see also Schuler, 1994, 1996). As the World Wide Web was introduced in the early 1990s and the millennium approached, heralding a rapidly evolving sophistication in how people communicated in synchronous and asynchronous modes, grassroots organizations, academics, funders, and government together began asking, “How can we ensure that all people have equal opportunity to learn, access, use, and benefit from technology in their daily lives?”

Early conversations regarding access focused on the “digital divide,” and as one might expect in retrospect, on telecommunications, connectivity, dial-up, and policy issues largely regarding poverty during the late 1980s. The term “digital divide,” which focused on the “haves” and “have-nots,” was popularized by the “Falling through the Net” report (1995), sponsored by the U.S. National Telecommunications and Information Administration (NTIA), by Servon (2002) and international comparisons by Norris (2001), Orbicom (2003), and others. However, despite its widespread usage, the term “digital divide” is problematic for several reasons as Warschauer (2003, pp. 6–7) explains. First, “a digital divide is marked not only by physical access to computers and connectivity but also by access to the additional resources that allow people to use technology well.” As Warschauer argues, the importance of physical availability and connectivity overshadows the roles of content, language, education, literacy, community, and social resources in community technology use.³ Second, Warschauer faulted the bipolar assumption that society can be easily divided into those who have access to technology and those who do not; instead, he argued, like others of the day, that gradations or degrees of access exist, a point especially significant when considering race and income. Third, the digital divide

label implies a chain of causality, that because one is poor economically, then one also has poor technology access, and vice versa. As a research concept, “digital divide” is thus hard to isolate, study, and make statistical inferences from. Fourth, as a guide for practice, digital divide overemphasizes technological solutions, not leaving space for other ways in which people come together around and benefit from community technology.

For many advocates, a more positive term for the new millennium is “digital inclusion” because it puts people first.^{4,5,6} The definition of digital inclusion used throughout this book, which borrows from the “Falling through the Net” NTIA report (2000) and others, is the cornerstone of the Communities Connect Network’s philosophy. Encompassing three areas: 1) access, 2) technology literacy, and 3) relevant online content and services, digital inclusion seeks equity for all residents, as well as small businesses and community-based (nonprofit) organizations. The three areas include the following components:

1. Access
 - a. Connectivity to the internet
 - b. End user equipment (hardware and software, including tools for people with disabilities)
2. Technology literacy
 - a. Skills required to utilize the equipment and internet effectively for essential services, education, employment, civic engagement, and cultural participation
3. Relevant online content and services
 - a. Services available for those in need
 - b. Culturally and educationally appropriate design
 - c. Marketing and placement appropriate to reach underserved communities
 - d. Enabling content production and distribution by lower capacity residents, businesses, and organizations

This three-prong definition of digital inclusion means that communities, including government, have to provide more than simple computer ownership. The Communities Connect Network believes

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this philosophy enables it to be more strategic about research, investments, and program delivery.

A strong definition of digital inclusion lays the foundation for describing community technology itself, the subject of this book. As now stated in Washington State law, a community technology program means:

A program, including a digital inclusion program, engaged in diffusing information and communications technology in local communities, particularly in underserved areas. These programs may include, but are not limited to, programs that provide education and skill-building opportunities, hardware and software, internet connectivity, and development of locally relevant content and delivery of vital services through technology. (Washington State Law E2SSB 6438.SL, Section 7, Paragraph 2, lines 18-25)

For more than two decades now, all types of community gathering places—from dedicated community technology centers to youth and community centers to schools, libraries, and 4-H clubs to seniors' associations, low-income housing, churches, radio stations, and municipal offices—have been involved in providing community technology programming in towns and cities across the U.S. Other pertinent facts about community technology programs include the following:

- “They are delivered onsite and online—many service organizations have installed computer labs for learning (also called community technology centers, CTCs, or telecentres). Some nonprofits have been created specifically to provide multimedia, media literacy, and technology education programs, but for most organizations, the technology tools are used to further a larger mission.
- They increase residents' self-sufficiency and capacity to learn, develop their skills and talents, and help people more fully participate in community and civic affairs. The result is a more educated community, more able workforce, new entrepreneurs, safer kids, and a better connected community. Community technology programs also

help develop consumers of information technology products and services.

- They are often supported by a patchwork of resources and undercapitalized. Organizations running community technology programs are very successful at leveraging and extending the resources they have but are challenged in finding sustainable funding sources. Organizations often secure funds through a combination of fundraising events, donations of products and services, volunteer labor, specific program grants, and some revenue generated programs. The mix varies considerably depending upon the capacity and nature of the organization, setting, and services provided.
- They need to be separate—the application of information and communications technology to education, human services, workforce training, civic engagement, and community development is a rapidly evolving field. Just as in the development of technology for the business sector, this takes training, strategic planning, and strategic investment. Community technology programs must be integrated into regular programs and service delivery, but this requires the development and sustainability of specific expertise, program content and infrastructure.” (communities connect.wikispaces.com/CT+ Definitions)

To varying degrees, the collective efforts of CTCs have resulted in regional and statewide associations, and a national association, the Community Technology Centers’ Network (CTCNet; 2008), as well as academic programs/curricula and research centers at universities across the U.S. and worldwide (e.g., Information and Society Center of the University of Washington Information School, 2009; Community Informatics Initiative, University of Illinois at Urbana-Champaign, 2008; Gurstein, 2007). But whether one refers to the field as community technology, community informatics, or information and communication technology, seminal questions remain of how to identify the impacts of community technology programs and how to successfully communicate those impacts in ways that are heard by policymakers and other key stakeholders. What counts as community technology use? Getting a job or a better score on a test is pretty straight forward, but what if someone uses a CTC on someone else’s

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behalf? Is that still considered a form of use? What about the indirect ways in which people benefit from CTC use, such as feeling more connected to society or just feeling happier? How can that be measured? Through identifying and communicating such complex forms of impacts, CTCs can attain long-term sustainability and achieve digital inclusion.

This book is about the impacts of community technology on the people of Washington State, as learned and told by the Communities Connect Network in its mission to achieve digital inclusion for all. In the following chapters, the Communities Connect Network story of identifying and communicating impact is presented in parts: the methodology (Chapter 3); seven case studies from across the State and an analysis of their impact (Chapters 4 through 11); our high level framework for measuring impact (the Situated Logic Model) and ideas for using it in the real world (Chapters 12 through 14); and a list of resources for professionals and academics interested in learning more about community technology and digital inclusion (Chapter 15). We begin Chapter 2 with an overview of the Communities Connect Network.

Endnotes

1. While “community” is undoubtedly one of the most bandied about terms in the academy, Willmott’s (1986) tripartite distinction is one of the clearest and most useful.
2. In California, Senate Bill 1863 in 2002 (info.sen.ca.gov/pub/01-02/bill/sen/sb_1851-1900/sb_1863_bill_20020828_chaptered.pdf) and Bill 720 in 2003 (info.sen.ca.gov/pub/03-04/bill/sen/sb_0701-0750/sb_720_bill_20030925_chaptered.pdf) determined that the Public Utilities Commission must provide a nonprofit community technology program to address inequality of access to advanced telecommunications services. Three million dollars was allocated to assist qualifying organizations in this effort. The influential Illinois “Eliminate the Digital Divide Law” passed in 2000 that “establish[ed] educational and economic development initiatives that will bridge the digital divide, making possible a society in which all individuals can benefit from the opportunities provided by the new technologies” focused on community technology centers and other community-based organizations (tinyurl.com/5p4ncu). This law was amended in 2007 to increase the size of grants that institutions can receive and created a working group to review grant applications and find financial support for the program, which had not been provided by the legislature (www.iasb.com/law/digest07.cfm and www.ilctc.org). Ohio

(www.clevelanddigitalvision.org/exec_order_broadband_ohio.doc) and Minnesota (www.revisor.leg.state.mn.us/statutes/?id=16E&view=chapter&year=1998#stat.16E.13) have also addressed community technology through executive orders and statutes.

3. Warschauer uses the popular term “ICT” (information and communication technology).
4. In this regard, authors such as Warschauer (2003, p. 8) prefer the broader term “social inclusion,” a European perspective that “refer(s) to the extent that individuals, families, and communities are able to fully participate in society and control their own destinies, taking into account a variety of factors related to economic resources, employment, health, education, housing, recreation, culture, and civic engagement.”
5. DiMaggio and Hargittai (2004), frequent authors on digital inclusion, have also popularized “digital inequality.”
6. Despite the widely accepted change in nomenclature by academics, the term “digital divide” has not died out completely. A 2005 review by Dewan and Riggins is worth noting.

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