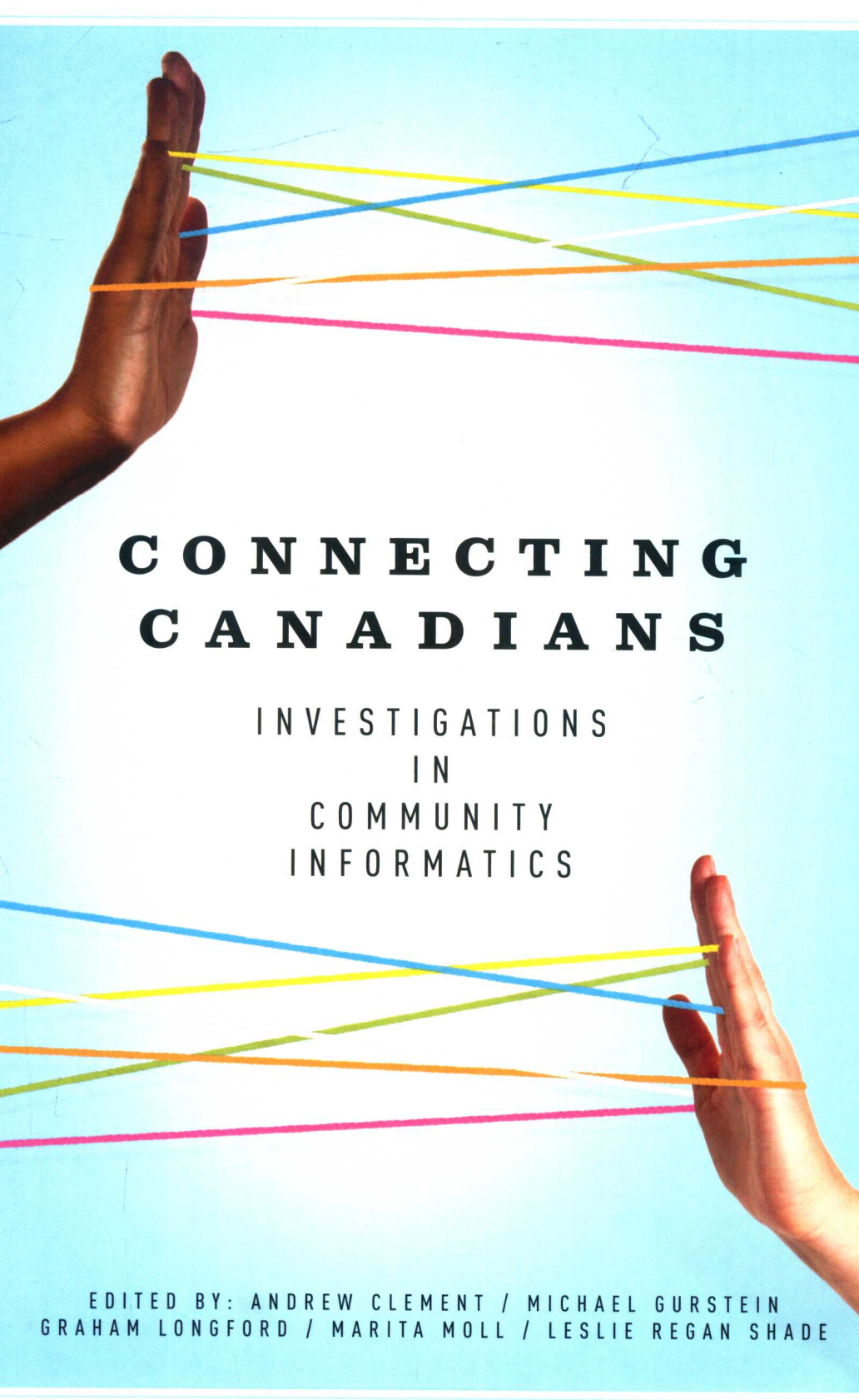

CONNECTING CANADIANS

INVESTIGATIONS IN COMMUNITY INFORMATICS

EDITED BY: ANDREW CLEMENT / MICHAEL GURSTEIN
GRAHAM LONGFORD / MARITA MOLL / LESLIE REGAN SHADE

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Edited by | *Andrew Clement* | *Michael Gurstein*
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most actively involved in the Connecting Canadians agenda. What made this relationship work was the openness and dedication of public officials who belied the stereotype of the uncaring faceless bureaucrat: Prabir Neogi (Industry Canada); Maureen Doody and Natalie Frank (Canadian Heritage); Rob Mastin and Michael Williamson (Human Resources and Skills Development Canada); and Heather Clemenson (Agriculture Canada). Prabir, in particular, saw the CRACIN project through from beginning to end, offering sage counsel and keen insights at every step along the way.

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PART VII Public Policy

CONNECTING CANADIANS

1 CONNECTING CANADIANS?
Community Informatics Perspectives on Community Networking Initiatives

Graham Longford, Andrew Clement, Michael Gurstein, Leslie Regan Shade

This volume of essays addresses the question of how citizens and communities in Canada are responding to the opportunities as well as the challenges presented by rapid technological change, particularly in the areas of information and communication technologies (ICTs). Since the 1990s, many commentators have extolled the virtues of the information or knowledge-based society that has emerged in recent decades and of the technological developments—microcomputing, data-processing, software, the Internet, and so on—underpinning it (Drucker 1994; Negroponte 1995; Tapscott 1997). Corporations, entrepreneurs, and governments have embraced these technologies in their pursuit of growth, innovation, efficiency, and global competitiveness, a process typified by the US retailer Wal-Mart's highly successful use of ICTs to rationalize and streamline its operations (Gurstein 2007; see also chapter 2 in this volume). In addition, citizens, consumers, and skilled workers have taken advantage of ICTs to enhance their own knowledge, skills, and communicative capacities, in the process developing new, more mobile, flexible, and collaborative patterns of work, consumption, learning, and communication (Jenkins 2006; Mitchell 2000; Tapscott 2008; Urry 2007).

The transition to the information age is, however, fraught with risk, for individuals, firms, communities, and entire regions of the globe. Globalization

and rapid technological change pose enormous challenges, including wrenching economic restructuring and dislocation, growing imbalances of wealth and power, and the marginalization and exclusion of whole regions and populations that lack the infrastructure, resources, knowledge, and skills needed to participate and thrive in the information society. Manuel Castells, among others, calls attention to the threat of economic and social exclusion posed by the "digital divide," that is, the inability of certain regions, communities, and populations to connect to and insert themselves within the vital networks of investment, production, consumption, education, and governance that serve as the central nervous system of contemporary global society (Castells 1998, 1999).

While Castells's work focuses on the risks of marginalization and exclusion facing large parts of the developing world that find themselves on the wrong side of the digital divide—the so-called "black holes" of the network society (see Castells 1998, chap. 2)—similar risks exist within developed countries as well, differing only in degree. In Canada, for example, recent studies and reports have found that a significant number of citizens and communities remain without access to broadband Internet infrastructure or supports and services, this despite the fact that the country began the millennium as a global leader in broadband availability (National Broadband Task Force 2001; National Selection Committee 2004; Telecommunications Policy Review Panel 2006; Howard, Busch, and Sheets 2010). Rural and remote regions of Canada, as well as marginalized communities and populations (such as Aboriginal Canadians and the urban poor), are in danger of being excluded as new, technology-enhanced economic, social, and educational opportunities pass them by. Recognizing the potential economic and social benefits of universal connectivity, many developed countries have over the past decade implemented national Internet and, more recently, broadband access strategies, including Australia, New Zealand, Denmark, and South Korea, to name a few. Many countries, including Estonia and Finland, have also proclaimed broadband connectivity to be a basic human right.[1]

However, as this book demonstrates, many communities at risk of being excluded from the information society are far from passive spectators to socio-technical transformation and are unwilling to leave their fate either to market forces or to government largesse. *Connecting Canadians: Investigations in Community Informatics* focuses on the active role that citizens, civic organizations, and communities can play in overcoming digital divides and connecting to the network society on their own terms, in ways designed to promote local economic and social development, community learning and innovation, civic participation, and social cohesion. This book reflects on and documents some of the findings of the Canadian Research Alliance for Community Innovation and Networking (CRACIN), a research partnership

funded by the Social Sciences and Humanities Research Council of Canada (SSHRC) from 2003 to 2007. (Details of this partnership are presented below.) As this book highlights, and notwithstanding the risks outlined above, increasingly well-organized and self-conscious grassroots technology movements, or community networks (CNs), have emerged over the past couple of decades in North and South America, Europe, and Asia to work on behalf of and with communities to mitigate some of the dangers of economic and social exclusion accompanying the emergence of the network society.

The essays in this volume document how specific civil society groups are engaged in diverse socio-technical projects designed to enable local communities to develop on their own terms within the broader context of global economic, social, and technological transformation (see Schuler and Day 2004). This is accomplished through various "community informatics," or community-based ICT initiatives,[2] ranging from neighbourhood technology centres and public Internet access sites to community web portals, e-learning applications, and community-owned broadband and wireless networks. In Northwestern Ontario, for example, the Aboriginal-owned and -controlled Kuh-ke-nah Network, or K-Net, operates a terrestrial and satellite broadband network that, among other things, supports distance learning and Telehealth applications, thus enabling the members of their participating remote communities to receive educational and health services online. Along with other goals, these services are designed to stanch ongoing outflows of youth, the elderly, and their families who, until recently, were compelled to travel great distances to receive such services, at a heavy cost to the social integrity of their local communities.

Community networks in Vancouver and Toronto, meanwhile, recruit volunteers from among skilled new immigrants to conduct computer and Internet training workshops and to develop community web portals populated with information relevant to other new migrants, including settlement, employment, health, and legal information, while at the same time allowing new migrants to gain necessary Canadian work experience. As well, in downtown Montréal, Île Sans Fil, an all-volunteer group of "hacktivists," students, and artists operates a network of some 150 Wi-Fi Internet "hotspots," providing free Internet access to more than 50,000 users.

Such initiatives are not conducted in a vacuum, as we shall see. Important ingredients to the success of community informatics initiatives include community support and engagement; fruitful partnerships with local non-profit and community organizations, the private, and public sectors; well-designed and adequately funded government programs; and a broader public policy environment that is supportive of the goals of universal access and community-based technology development.

This book will be of interest to multiple audiences. It will appeal to the academic community, in furthering empirical community informatics studies and in detailing Canadian public policy initiatives designed to ameliorate the digital divide. It will also be of interest to the practitioner community, especially in its documentation of successes in empowering community members through ICTs as well as its analysis of how communities fostered technological innovation while dealing with difficulties engendered by the politics of both community and federal funding strictures.

COMMUNITY INFORMATICS IN CANADIAN AND INTERNATIONAL PERSPECTIVE

Broadly speaking, as both a practice and an academic discipline, community informatics (CI) refers to the use of information and communication technologies to enable communities to reach their social, economic, cultural, and political goals (Gurstein 2007). Applications of CI include such activities and services as community Internet access provision, community information sharing, local online content development, online civic participation, online community service delivery, community economic development and e-commerce support, formal and informal learning networks, ICT training, and telework support.

Exemplifying the operational approach to CI is community networking, which historically has played a central role in the development of CI initiatives on the ground. Schuler (2000) defines community networks as enabling electronic environments that promote citizen participation in community affairs. Gurstein (2004, 231) describes a community network as "a locally-based, locally-driven communication and information system" designed to enable "community processes and [to achieve] community objectives."

Community networks began to emerge in the 1970s and 1980s, initially as experiments in the use of computers and other networked digital technologies to support local communities. These included both grassroots efforts, such as the Community Memory project (Kubicek and Wagner 2002) and the online community The Well (Rheingold 2000) in California, and large-scale government initiatives to develop public information systems, such as France's Minitel (Feenberg 1995) and Canada's Telidon projects (Clement 1981). CNs often take the form of community-based ICT-enabled organizations supporting universal access to the Internet and the use of ICT systems to promote local economic and social development, civic participation, social inclusion, and community learning.

Ranging from basic public computing and Internet access sites to full-service community technology centres and interactive web-based community

information systems, CNs share in common the broad ideals of promoting economic and social participation by using ICTs to enhance the communication and informational resources available to people living in cities, towns, and specific neighbourhoods, as well as in rural and remote communities (Gurstein 2007; Keeble and Loader 2001b). Best practices in community networking treat community members as active designers of their network and as producers of local content, while at the same time striving, through training and other forms of support, to transform community members into skilled agents in the use of ICTs so that they can pursue individual and collective goals (Gurstein 2004; Pinkett 2003; Ramírez et. al. 2002).

Among the thousands of community networking projects initiated worldwide, some of the better known, most thoroughly documented, and successful examples include the Digital City Amsterdam (De Digitale Stad) (Lovink 2004), the Seattle Community Network (Silver 2004), Blacksburg Electronic Village, in Virginia (Kavanaugh and Patterson 2002), the Milan Community Network (Rete Civica di Milano) (De Cindio 2004), and the Public Electronic Network (PEN) of Santa Monica, California (Dutton and Guthrie 1991). A rich CI literature has begun to emerge, covering a broad range of issues and focusing on the benefits of these and other CNs in North America, Europe, Latin America, Africa, Asia, and Australia (Gurstein 2000; Keeble and Loader 2001a; Marshall, Taylor, and Yu 2004; McIver 2003; Schuler and Day 2004).

Alongside studies of CN practices, scholarship interrogating the implications of the Internet for community formation, identity, and social cohesion is voluminous. Indeed, the last decade of the twentieth century was rife with utopian and dystopian prognostications on the nature of virtual communities and debates over the problematic nature of the increasing incursion of commercial models onto public platforms (Shade 1998). Today, so-called Internet Community Studies is well entrenched in interdisciplinary scholarship, as is evident in the proclivity of researchers studying both the micro and macro dynamics wrought by the inherently collaborative nature of the Internet for individual empowerment and collective mobilization (Burnett, Consalvo, and Ess 2010; Wellman 2004). As Cavanagh (2009) also argues, Internet Community Studies has generated much methodological innovation, while lively debates on the politics of community within networks has opened up space for fresh interrogations of ongoing themes in community research, among other areas.