COMMUNITY NETWORKING in Canada: A Status Report

BY Leslie Regan Shade

THE EARLY TO MID-1990S GAVE RISE TO A PLETHORA OF COMMUNITY-BASED COMPUTER NETWORKS (COMMUNITY NETS) ACROSS NORTH AMERICA, IN BOTH URBAN AND RURAL COMMUNITIES. PROPONENTS OF COMMUNITY NETS ADVOCATED THIS NEW FORM OF COMMUNICATIONS FOR EDUCATIONAL OPPORTUNITIES, ECONOMIC DEVELOPMENT, AND ENHANCEMENT OF CIVIC PARTICIPATION, AND THEY WORKED TO MAKE IT READILY AVAILABLE TO ALL CITIZENS, FREE OF CHARGE. COMMUNITY NETWORKING REPRESENTS ONE OF THE MORE DYNAMIC EXPERIMENTS IN USING ICTS (INFORMATION AND COMMUNICATION TECHNOLOGIES) TO STRENGTHEN LOCAL, GEOGRAPHICALLY-BASED COMMUNITIES. WHILE THERE ARE MANY FORMS OF COMMUNITY NETWORKING, THEY HAVE IN COMMON THE BROAD IDEALS OF PROMOTING SOCIAL EXCLUSION AND EQUITY BY ENHANCING THE INFORMATIONAL RESOURCES AVAILABLE TO PEOPLE LIVING IN COMPACT TERRITORIES – CITIES, RURAL TOWNS, AND NEIGHBOURHOODS.

In Canada, at their high point between 1995-96, there were 35 operating community nets with between 250,000 and 600,000 members. In 2002, however, many of the original community nets were defunct; several were still alive, but struggling to survive, and the federal government was continuing their own brand of community nets under the guise of the Community Access Program (CAP). Domestic Internet penetration in Canada reached 51%, according to 2000 figures culled by Statistics Canada, and the Internet was fully entrenched as a commercial model, so for many, there was no real need to have a free service to the Internet as community nets provided. However, as I will argue here, given the increasing concentration of the commercial media in Canada, the rhetoric of place-destroying globalization, and a neoliberal agenda, the original tenets of community nets are now needed more than ever.

This article will thus provide a brief history of Canadian community nets and their goals – and trace how some of their original vision has changed because of technological developments, diffusion, and trends in public policy. Then I will examine a burgeoning field of studies – that of Community Informatics – which looks at how various communities, social groups, voluntary agencies, and governments are using ICTs to enrich their local place-based communities, and provide both a viable non-commercial alternative to mainstream media and a sustainable public space for citizens.

In Canada, the widespread creation of community networks thus became a powerful model to many for enabling citizens to support and sustain community (geographically-based and "virtual" community), participate in the public sphere, exercise democratic imperatives, and reinforce national identity.

COMMUNITY NETWORKS – THE ORIGIN STORY

The community nets that sprung up in the pre-Web early 1990s were certainly not the first manifestation of computer-mediated-communication adopted for local needs. In the 1970s several trials of Videotex were initiated, notably in North America and Britain. Videotex was an information delivery system for the home, typically a menu-driven system designed for display on television sets, with content consisting of news, weather, and local information and services (bus schedules, entertainment events). The Communications Research Centre, the research arm of the federal Department of Communications, developed Canada's contribution to videotex with approximately $9M in funding. Telidon was widely touted in policy circles as a key player in boosting both Canadian content and in positioning Canada as a leader in technological innovation, but, as with other videotex systems, it failed miserably in the market, because of lack of content, poor interface design, and high costs.

Conceptual pronouncements of wired cities in the 1970s are also illustrative of the naïve optimism that swarmed around early projects. Interactive cable trials emphasized delivering consumer information to the home, and only later did they encompass concerns over provision of basic telecommunications services, the significance of telecommunications for the economic prosperity of individuals and nations, and the furtherance of national interests and cultural values.

One such successful endeavour was Community Memory, the world's first public computerized bulletin board system, based in Berkeley, California. Running out of the community centre Resource One, it was described as "a kind of electronic bulletin board, an information flea market. You can put your notices into the Community Memory, and you can look through the memory for the notice you want". Although a precursor to bulletin board services (BBSs), Community Memory was unique in its adherence to both promoting local content, and in its physical placement in an open, community access point. A similar model was set up in Vancouver in the early 1970s, which also shared the goals of community sharing and enhancement.

In the mid 1980s Tom Grundner conceived the Cleveland Free-Net in Ohio, which had its start through the Department of Family Medicine, Case Western Reserve University as a resource for medical information. He later expanded the idea to encompass diverse community content, and developed the National Public Telecomputing Network (NPTN) to actively help organizations develop Free-Nets in other U.S. cities. David Sutherland, then head of Communications and Computing at Carleton University, and two professors in Journalism and Mass Communication, Jay Weston and George Frajkor, adapted the free-net concept and developed the National Capital FreeNet (NCF), which was considered to be one of the first successful Canadian models of community networking. It was established in 1992 as a non-commercial, co-operative, community project with the active participation of volunteers, Carleton University, and private industry (which donated modems and the communications equipment for connecting the FreeNet to the local public library). At its height, the NCF consisted of a diversity of vital community information. Over 250 information providers posted information on a multiplicity of topics (including health, social services, education, recreation, federal and local government, and women's issues). Special interest groups were eclectic, including those devoted to computers, media, arts, teaching, sports, dogs, librarians,

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home beer- and wine-making, astronomy, and mental health.

In the summer of 1993 Carleton and the NCF sponsored the first International Community Networking Conference, which brought together academics, policymakers, and community activists. One of the central themes of the conference was the insistence that community nets serve as a free and open service for community members. At that time the Internet was still the preserve of universities, research centres, and high-tech corporations, and it was only just beginning to diffuse its way into popular consciousness. For many, community nets represented the only way to connect to the Internet, as ISPs (Internet Service Providers) were still in a nascent state.

In Canada, the widespread creation of community networks thus became a powerful model to many for enabling citizens to support and sustain community (geographically-based and "virtual" community), participate in the public sphere, exercise democratic imperatives, and reinforce national identity. Community networking activists John Stevenson and Greg Searle, in their presentation to the Canadian Radio-television and Telecommunications Commission (CRTC) convergence hearings in 1995, epitomized this sentiment when they wrote that: "We believe that community networking represents a grassroots effort by Canadians to create a truly citizen-based Information Highway, one which reflects what people want from this new technology: a place to think, learn, and communicate with their neighbours and an emerging knowledge-based world."

Community networks emphasized local needs, universal access, and social change. As a community owned and controlled service, community nets emphasized the posting of local resources, services, culture and people. Community nets were also concerned with ensuring universal access to the network for free or with a very nominal cost to all members of the community. Schools, libraries, community information and recreational centres, and shopping malls often served as public access points. Proponents of community nets also believed that they could contribute to community development, and strengthen and revitalize communities through positive and interactive communication between residents and local institutions.

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Telecommunities Canada (TC), an umbrella organization for all community nets in Canada, was founded in August 1994, with the mandate to lobby for charitable status for community nets, assist groups on local liability policies, develop an on-line literacy program for the public, and organize and promote annual national conferences. In 1998, despite the easy availability of ISPs and widespread use of the Internet in libraries, workplaces, and homes, there were almost 60 community networks operating in Canada, although this definition of community nets included CAP sites, which will be discussed below.

FROM INFORMATION HIGHWAYS TO SMART COMMUNITIES

Federal government policy-making surrounding what was then called the "information highway" was conducted through the Information Highway Advisory Council (IHAC), which issued a series of reports from 1995-97 in support of the government's information infrastructure strategy. This consisted of 1) creating jobs through innovation and investment; 2) reinforcing Canadian sovereignty and cultural identity; and 3) ensuring universal access at a reasonable cost. IHAC committee members reflected corporate and technology interests, with little to no representation by the public interest community. This techno-economic imperative championed a competitive and market-led perspective, in contrast to the socio-technical tradition that considers the needs of a broadly-defined society: citizens and civil society, the non-commercial sector, the market, and the government.

The CRTC also recognized the value of community nets by recognizing their role in supporting Canadian content, network literacy and universal access. However, the federal initiatives that evolved to connect Canadians to ICTs did not capitalize on the growing experience of Canadian community nets; instead these initiatives concentrated on the easier-to-implement but much less empowering "access to information" model represented by the Industry Canada's Community Access Program (CAP).

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The Connecting Canadians agenda consists of an array of ICT based programs for Canadian communities and international projects. They range from connecting the Internet to public access points, through SchoolNet (schools), libraries (LibraryNet), community centres (Community Access Program), and "Smart Communities". The needs of the voluntary sector are emphasized (VolNet) as well as youth (Skill.net and the Student Connection Program). E-Commerce initiatives are highlighted, as is the Government Online project. NetCorps International attempts to reach the needs of developing countries, by sending young Canadians abroad to help connect the Internet in communities in Africa and Latin America.

Public Internet access projects are the focus of Industry Canada's

Community Access Program (CAP) and Human Resources Development Canada's Community Learning Networks (CLN) program, a part of their Office of Learning Technologies. The CAP program provides funding for non-commercial organizations (libraries, schools, community centre, community nets, and municipal and territorial funding) for Internet connectivity. Funding, up to $30,000, requires partnerships and allows for the purchase of computers, an ISP and training. CLNs are community access centres, sponsored by the Government, that give citizens access to the Internet and World Wide Web. These community centres are public spaces that foster and create community values and technological literacy, offering a safe space for those without computer access at home to learn new skills congruent with the information age.

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Some community networks have found ways to fit into the "Connecting Canadians" agenda. Community networks in Ottawa, Vancouver, and Halifax have a role in delivering the VolNet program in their region. Ottawa's National Capital Freenet has a big piece of Ottawa's winning bid for a "Smart Communities" project, while various networks have also participated in the rural and urban CAP projects.

The "stove-pipe" approach to computer networking pursued by Industry Canada's "Connecting Canadians" agenda was focused, not on connecting communities as a whole, but on connecting individual sectors of communities. For instance, the library community, among the original supporters of community networks, was encouraged to concentrate on creating networks of libraries through LibraryNet, schools were connected through SchoolNet, and voluntary agencies were connected through VolNet. The Community Access Project (CAP) provided one-time grants to set up information access sites, but no assistance to help them move beyond access to enable communication and content building.

From the e-commerce agenda, the federal government switched to broadband deployment in light of the "New Economy". In the Fall of 2000, the National Broadband Task Force (NBTF) was established by the former Minister of Industry Canada, Brian Tobin. Its mandate was to examine "the best approaches to make high-speed broadband Internet services available to businesses and residents in all Canadian communities by the year 2004", and its three rationales included: 1) ensuring Canadian competitiveness in a global economy, 2) addressing the digital divide, and 3) creating "opportunities for all Canadians."

Presciently, David Johnston, ex-head of Canada's Information Highway Advisory Council (IHAC), was named to lead the 35-member task force, which included 22 members with clear corporate connections to the telecom and communications industry. Only five members were clearly identified with broad public interest issues such as universal access and privacy. As with IHAC, where deliberations took place "behind closed doors", the NBTF deliberations were closed to the public – although submissions could be made and were posted on-line at the NBTF website. However, only 34 submissions were made, with most of them championing the deployment of broadband services, particularly for remote and rural communities.

The NBTF's report was released in June 2001, with the Task Force recommending the deployment of a national broadband network at a cost of between $1.85 billion to $4.5 billion. Connecting rural and remote communities and aboriginal settlements was emphasized, with priority given to providing service to health facilities, libraries, schools and other public institutions. Surprisingly, media coverage was lukewarm in its reception (perhaps a reaction to recent dot.com slumps), criticizing both the necessity for and cost of deploying broadband. Instead, more attention was paid to NBTF recommendations to review foreign investment rules, with the view towards easing federal regulatory measures in order to ensure participation in the project.

The 2001 budget, much to the dismay of Tobin and other champions, bypassed the broadband proposal, instead allocating only $110 million for a scaled-down "innovation agenda," with funds being directed to help build a kind of super-Internet for schools, universities and medical researchers.

Despite this, broadband deployment for "Smart Communities" has been promoted at the federal and municipal level, with strong partnerships between local businesses and the tech sector. Smart Communities are predicated on an economistic model – alliances and partnerships which promote innovative ways "to extract new economic and social value from electronic networks and the public Internet", says Industry Canada. "Innovation" here can be for e-government activities, service delivery to the public, business and economic development, tourism development, access to community information, learning, training and education, the preservation of cultural heritage, arts development, and bridging the digital divide. A premise is that "Smart Communities" will lead to "Smart Citizens" and perhaps even "Smart Democracy". The rhetoric is suffused with optimistic potential, but it must be remembered that the model here is probably more technology-driven than community-driven.

COMMUNITY CONTENT, COLLABORATION AND COOPERATION ARE KEY

Ottawa's NCF has joined the Smart Capital project through their "Thin Client" that provides members with access to various office automation and web-authoring software

through NCF's modem pool and server infrastructure. This allows NCF members with modest computers to have access to some of the latest Windows-based applications. The partnership also enables NCF member to send and retrieve e-mail from any Internet terminal, creating, in a sense, a portable, community-based network, an alternative to other free e-mail programs such as Microsoft's Hotmail or Yahoo's email.

Many community nets across Canada have been developing enabling tools, processes and structures. The key here is the development of dynamic community-based content, which is not available on commercial portals. For instance, the Chebucto community network in Nova Scotia operates a web-camera on the top of the highest building in Halifax. Originally used to feature the Tall Ships coming into the Halifax harbour, it is presently offering a view of the city's Victorian era gardens where a number of "old forest trees" are being cut to halt the spread of disease. People are able to view the park with the web-cam and also participate in a discussion forum. Some services developed in Saskatchewan include an e-commerce promotion in the form of an electronic community storefront; a virtual reference service where librarians respond to online queries from all over Saskatchewan, Canada and beyond; and a project that cooperates with medical services to provide or facilitate remote access to specialists. Halinet, a community entry tool that allows community groups to build their own databases. Current databases include heritage collections of books, deeds, documents, photographs, memoirs, videos, maps, and other items; newspaper features about the community from the turn of the century; and a collection of documents on Great Lakes history. It also has an online volunteer centre that allows people to select volunteer opportunities according to their age, community, interests, and availability. A special search feature has been provided to enable secondary school students to find relevant opportunities to satisfy their mandatory volunteer requirements for Ontario high school graduation. Volunteers are able to contact the agency or agencies involved electronically through the Web interface.

The national organization, Telecommunities Canada (TC), has been developing a number of tools and services for the use of all community network members, including open source software that enables community networks and their users to customize their opening menus. This "portal" software allows users to always have a page of their favourite

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destinations in front of them. Channels may be either "active" with continuously updated weather or news headlines or, "passive" with collections of links. Users can also create channels and publish them for the use of the general community. TC has also developed a WebMail service that allows holders of Canadian community-based e-mail services to access their home mailboxes from any location. This service is advertising-free and authenticated (i.e., not anonymous). They also provide streaming video services that provide an opportunity for community nets to present

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the activities of their citizens to the rest of the country and to the world, both live and in stored archival form. Using this service, a local Junior A hockey team was the first in Saskatchewan to broadcast games in video over the Web in real time. And, finally, TC is developing a "Network of Networks" project that will create a national community networking database. There is, as yet, no comprehensive national listing of all community networks, community access sites, and other similar network access initiatives in Canada. As a start to this initiative, a recent project with the Office of Learning Technologies has created a directory of and links to online learning opportunities offered through community networks including online courses.

COMMUNITY INFORMATICS

As a new multidisciplinary field of academic study, community informatics is concerned with the study of the enabling uses of ICTs in communities – how ICTs can help achieve a community's social, economic, cultural, or political goals. Community informatics brings together the perspectives of a variety of stakeholders – community activists and groups, policymakers, users/citizens, artists, and a range of academics working across disciplines (communication studies, cultural studies, information studies, sociology, political science, urban studies and geography, and Canadian studies). Michael Gurstein has been one of the pioneers of this new field, and he cites six areas that encompass a community informatics approach: access facilities, service design, telecentre or community access centre design, design of the community system, online service delivery, and online support. Applications of community informatics include community Internet access, community information, online civic participation, online community service delivery, community economic development, education/training/learning networks, community and regional training, and telework.

A rich literature has developed in community informatics, which covers a broad range of issues, focusing on case studies in North America, Europe, Latin America, and developing countries. These issues, broadly speaking, include:

• Access – how are access needs met in particular communities? Are community nets able to bridge the digital divide? (Access here defined as both access to the technical and the social infrastructure)

• Community economic development - how are community nets contributing to this?

• Social cohesion – are community nets contributing to social inclusion? What has been the effect of community participation?

• Development – are telecentres and other public access facilities meeting the needs of those in developing countries?

• Learning – how are community nets being used or contributing to digital literacy?

THE NEXT FIVE YEARS: TOWARDS "GLOCALIZATION"?

Despite many difficulties (fiscal, dependency on volunteers who can easily burn out, a need to constantly create viable community content), Canadian community nets are still alive. The initial exuberance and idealism which first nurtured community nets has turned into pragmatism, as some systems that were free (or donation-driven) have begun charging nominal fees, based on the level of services received. Partnerships with the private sector are also an integral part of the new model.

Canadian community nets have also aligned themselves with international efforts and projects in community networking. TC and other community nets have maintained contacts with international associations, including the European Association of Community Networks. In October of this year, Montreal will host the Global CN 2002—the Third Global Summit on Community Networking in the Digital Era (see http://www.globalcn2002.ca/index.html). The conference is sponsored by the GlobalCN Partnership, an international coalition of community networks, which was founded in Barcelona in November 2000 following the first international meeting of community networks, which brought together 450 delegates from all continents, representatives from various governments, international institutions such as the Council of Europe and the UN, and private telecom corporations. The featured agenda focuses on the future of community networking, civic empowerment and broadband; Smart Communities and digital cities; Internet rights and policies; and multiculturalism and multilingualism on the Internet.

This conference will also serve as a preparatory conference leading to The World Summit on the Information Society, to be held in Geneva, December 10-12, 2003 (see http://www.itu.int/wsis/). This initiative, led by the United Nations and the ITU (International Telecommunication Union), will bring together governments, civil society groups and NGOs, the private sector, and community activists to address a broad range of Information Society themes, and adopt a Declaration of Principles and Action Plan, addressing a gamut of issues related to the Information Society, including access and equity, information as a common good, community economic development, and rights and responsibilities for the digital citizen. One of the groups involved is Communication Rights in the Information Society (CRIS) an initiative of the Platform for Communication Rights, whose members include international organizations (including GlobalCN) and individuals committed to the promotion of communication rights and the Right to Communicate as a means to enhance human rights and the social, economic and cultural lives of people and communities (see http://www.comunica.org/cris/).

It is inspiring that Canadian community nets are working with international groups concerned with the broader global societal goals of information as a public good and communication rights for all citizens. However, more advocacy and work in Canada needs to happen, particularly given that Canada has one of the most highly concentrated commercial media systems in the world. Two suggestions will be made here. One, public policymaking on ICTs has left out the public – unlike the days of Graham Spry and the Canadian Radio League, it involves blue ribbon panels and policymakers who are often too divorced from their constituency. This needs to change. Canada needs an open, inclusive, participatory, and far-reaching consultative process. Two, while the CAP and CLN programs have complex and often contradictory objectives, they all declare the aim of bringing Canadians closer together in some fashion – whether for cultural enrichment or economic development. Although several hundred million dollars have been spent in these programs in support of some 10,000 community ICT initiatives, so far there has been remarkably little evaluation of these programs to determine what has been achieved, what difficulties have been encountered, what effect these programs have had on community networking practices, and what policies or programs are now appropriate in light of contemporary ICT developments. Academic work that engages community participants, policymakers, and the private sector needs to happen – and there is a viable field of community informatics that can inform this process.

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Many argue that the health of a nation depends on the strength and vitality of its cultural industries, and, although community networking has not secured the same credibility as the broadcasting, publishing, and film industries, it has proved to be a very responsive and viable "local culture" and can play an important role in the development, organization and dissemination of content that matters to the community.

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