A COMMUNITY PARTNERS PROFILE

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THE ALBERTA LIBRARY
(HTTP://WWW.THEALBERTALIBRARY.AB.CA/)

The Alberta Library is a province-wide library consortium that works with its members to promote universal, barrier-free access to the materials and resources in Alberta’s libraries. Between 2004 and 2007, researchers from the University of Alberta’s Faculty of Extension partnered with the Alberta Library and a number of libraries from communities across the province in order to explore the potential uses of new technologies, such as broadband and video conferencing, to increase social interaction and participation among users and to assist governments and libraries in the development of appropriate policies for the adoption of new technologies in public libraries (Adria 2007). The research project is of particular importance to libraries in rural communities, which are expected to become important hubs for broadband connectivity and services in such communities. Research was conducted at public libraries in four rural Alberta communities slated for connection to the province-wide Alberta SuperNet broadband network.

The Alberta Library–University of Alberta project explored a number of questions related to broadband networks and public libraries, including how library users and decision makers view the use of physical space and broadband technology in the public library and what changes are
anticipated in the relative importance of *information-seeking* versus *social interaction* activities (e.g., video conferencing, civic engagement) as a result of the adoption of broadband technology in the public library. The research project was specifically designed to pilot the development and evaluation of socially interactive activities such as intergenerational storytelling via video conference links.

Key research activities included an intergenerational storytelling demonstration pilot project conducted between two communities, a regional workshop on technology in the public library, and a series of semi-structured interviews and focus groups involving some forty participants, including librarians, trustees, citizens, and local politicians (Adria 2007). In the storytelling project, elementary school students in two communities were linked via video conference to each other as well as to elderly participants in the project who recounted stories of their childhood to the students.

**COMMUNAUTIQUE**

(HTTPS://WWW.COMMUNAUTIQUE.QC.CA/)  

Communautique is a Montréal-based non-profit urban community network founded in 1995 to assist low-income individuals and families and other groups potentially excluded from participating in the information society. It provides Internet access and other ICT services and training throughout the province and has assisted with the installation of more than eighty Internet access points in communities across Québec. Until recently, Communautique also managed a CAP Youth Initiative program that allowed youth facilitators to be hired in various communities to provide information and training sessions on the use of ICTs to socially marginalized populations, including low-income, new immigrant, and elderly individuals. Overall, Communautique’s Internet initiation and new technologies workshops have been attended by over a hundred thousand people and have played an important role in combatting the digital divide in Québec society.

Communautique also plays an active and visible role advocating on behalf of universal access and community networking. In 2002, for example, it issued its *Plateforme québécoise de l’Internet citoyen*, which articulated the basic principles of community networking—emphasizing the importance of overcoming the digital divide and enabling full participation in the information society—and called upon government to develop and implement policies and programs that recognize universal access as a basic right of citizenship and that support the role played by community networks in democratizing the information society. The *Plateforme* is supported by more than 350 community groups and individuals. In addition, Communautique has raised public
awareness of the potential impact of the provincial government’s online initiatives on the voluntary sector and the populations it serves.

Communautique is also active in building ICT capacity within the voluntary sector itself in order to enable community groups to work more effectively to accomplish their goals. Communautique is a founding member of Réseau Maillons, a network that brings together actors in the non-profit sector interested in the development of the Internet in Québec. Since 2006, Communautique has led a research program on digital inclusion, intended primarily to establish a qualitative portrait of the inclusion/exclusion experience of Québec citizens who are handicapped or who have a limited degree of familiarity with the use of Internet for information and communication purposes, as well as to establish priorities that will encourage their inclusion.

ÎLE SANS FIL MONTRÉAL
(https://www.ilesansfil.org/)

Île Sans Fil (ISF), also based in Montréal, is one of Canada’s most successful and innovative community wireless networks. Founded in 2001 by two university students and now comprising an administrative board of ten members and a core membership of some forty to fifty people, ISF is a completely volunteer-run initiative. A bilingual organization, Île Sans Fil has both francophone and anglophone volunteers and works with both French and English organizations. With over 150 hotspots and 60,000 registered users in downtown Montréal, ISF has become the dominant provider of public wireless access points in the city, while it has also emerged as a key player in the city’s open source software and community media landscapes.

Île Sans Fil describes itself as a non-profit organization dedicated to “the development of a free communication infrastructure to strengthen local communities in the greater Montréal region” and to the use of wireless technology “to empower individuals and to foster a sense of community.” To achieve these goals, ISF members focus on a number of key activities. The first is the deployment and maintenance of free Internet-access hotspots in public spaces (cafés, parks, etc.) throughout downtown Montréal. ISF has adopted a “venue-sponsored” model in which local businesses, public institutions, and community organizations agree to share their existing broadband connection with their customers, clients, and neighbours for free via wireless hotspot technology that ISF volunteers install and administer at no charge. ISF was operating 155 hotspots as of 2008, making it one of the largest community wireless networks in North America.

ISF is also actively engaged in developing locally relevant content for delivery via unique captive portal pages at each of its hotspot locations. When
users connect to the ISF network, they see an initial portal page unique to the location, which is used to disseminate local content and to encourage interaction among hotspot users. In collaboration with local artists, community groups, and volunteer programmers and developers, for example, ISF has participated in a number of projects featuring local content on its portal pages. Additional functionality, such as the delivery of local services, is currently under development.

The dissemination of local content via ISF’s hotspot network was facilitated by its WiFiDog authentication server software, developed by ISF technical volunteers. The WiFiDog software initiative has been a highly successful open source software development project in its own right, with WiFiDog software having been adopted by more than fifty community wireless networks and other organizations spanning four continents (http://dev.wifidog.org/). In October 2010, WiFiDog migrated to a new technology, AuthPuppy, a new open source platform for authentication.

**KEEWATIN CAREER DEVELOPMENT CORPORATION (HTTP://WWW.KCDC.CA/)**

The Keewatin Career Development Corporation (KCDC) is a non-profit organization formed in 1996 by a group of fourteen career and educational service-providing agencies in northern Saskatchewan. The partners are a mixture of K–12, post-secondary, Métis, First Nations, and provincial government agencies. The KCDC’s broad mission is to use information and communication technologies (ICTs) for the social and economic benefit of the residents of northern Saskatchewan. Operations are overseen by the general manager and carried out by paid staff.

Northern Saskatchewan includes roughly 37,000 people inhabiting forty First Nations, Métis, rural, and remote communities scattered across a heavily forested region interspersed by thousands of lakes, rivers, and streams. Approximately 85 percent of its residents are of Cree, Dene, or Métis descent. The regional economy depends primarily on mining, logging, and forest products, on tourism, and on government administration sectors, with the potential for tar sands development in the northwest. The economy is underdeveloped, and socio-economic conditions are challenging. Both household income and educational attainment are much lower than the national average, and unemployment rates are high. Access to health, educational, and employment services is limited by the remoteness and small size of the region’s communities.

Since its founding in 1996, the KCDC has engaged in several different but complementary initiatives. These include successfully applying to be the
Saskatchewan demonstration site for Industry Canada’s Smart Communities project. The KCDC’s Smart Communities project, Headwaters, ran from 2000 through 2004 and supported initiatives in distance education, community Internet access, e-commerce, telemedicine, e-government, video conferencing, and heritage preservation. In 2002, the KCDC became the regional management organization (RMO) responsible for administering Industry Canada’s First Nations SchoolNet programs in Saskatchewan and, until 2009, in Alberta. In this capacity, the KCDC assisted First Nations schools in managing their connections to CommunityNet and SuperNet, the provincial government broadband connectivity programs in Saskatchewan and Alberta, respectively. From 2003 to 2005, the KCDC worked with the Saskatchewan Association of Northern Communities (New North), the Prince Albert Grand Council, and Meadow Lake Tribal Council to implement the Northern Broadband Network, a $9-million initiative, carried out as part of Industry Canada’s Broadband for Rural and Northern Development (BRAND) pilot program, that brought broadband Internet services to northern Saskatchewan.

The KCDC operates in several distinct areas, with an overarching focus on the networked delivery of career services, with particular expertise in multicast video conferencing. The KCDC also continues as the First Nations SchoolNet RMO for Saskatchewan. It operates the CanSask Career and Employment Services site for northern Saskatchewan and, in connection with its Breaking Barriers series, has produced numerous videos on various occupations in the North. The Keewatin Academy of Information Technology (KAIT) offers several Cisco Networking Academy technical certifications that are delivered through video conferencing. Largely as a result of the decline in public funding, there is greater emphasis today on commercial pursuits, such as KCDC Media Services, which offers a wide variety of video, website, web streaming, video conferencing, and video capture services. Through its Headwaterstech division, the KCDC is also a successful SaskTel mobility and Internet services dealer.

KUH-KE-NAH NETWORK
(HTTP://KNET.CA/)

The Kuh-ke-nah Network (K-Net) is an Aboriginal-owned and -controlled community network that currently serves sixty First Nations communities across Ontario and Québec. K-Net Services is the telecom and ICT arm of the Keewaytinook Okimakanak Tribal Council (the Northern Chiefs), an Aboriginal organization representing six First Nations communities located in northwestern Ontario. K-Net primarily serves remote and sparsely populated First Nations communities that inhabit the Sioux Lookout district in
northwestern Ontario. The Sioux Lookout district is part of the Nishnawbe Aski Nation (NAN), a political territory that includes fifty-three First Nations across northern Ontario. NAN communities vary between 100 and 2,000 people and are extremely remote. Many are only accessible by air, while others are accessible via temporary winter roads. As a result, community members are compelled to travel great distances in order to receive advanced medical and educational services, at a considerable financial and social cost. Indubitably, distance and isolation shape the social fabric of NAN communities.

K-Net's telecom infrastructure consists of a C-Band Public Benefit transponder, IP video conferencing and telephony, web and email server space, and a variety of terrestrial wireline and fixed wireless links that effectively connect small, scattered First Nations communities with each other as well as with the wider world. In the space of less than a decade, these K-Net communities have gone from a situation in which it was common for there to be but a single public payphone in a settlement to the point where forty of these communities have high-speed Internet service available to private households.

But K-Net is far more than a provider of basic carriage services. Rather than be a seller of products, it is a facilitator for First Nations organizations and communities. In this capacity, it brokers relationships among various agencies to provide a wide range of public and civic services to remote communities, including access to Telehealth, Indian and Northern Affairs Canada's First Nations SchoolNet, the Keewaytinook Internet High School, personal homepages and email addresses, Keewaytinook Mobility, video conferencing and webcasting and archiving of public events. K-Net's myknet.org free website hosting service, for example, allows community members to create personal and community websites. MyKnet has been enthusiastically embraced by First Nations communities and beyond, with currently over 30,000 sites created. A more recent initiative is the On-Demand Book Service (ODBS), designed to support the joy of reading in rural and isolated First Nations communities within the context of learning, knowledge sharing, and the recording of history. In late 2010, radical capacity changes appear to be in store for twenty-six K-Net-affiliated communities. An $81-million agreement between the Nishnawbe Aski Nation, the Province of Ontario, Industry Canada, and Bell Aliant is scheduled to build a network that will enable speeds up to fifty times faster than Bell Aliant's and K-Net's current systems.

First Nations community ownership and control over local loops means that each community can adapt broadband services to address local challenges and priorities. The aggregation of demand from disparate users creates economies of scale and allows the dynamic reallocation of bandwidth to meet social priorities (Internet high school classes, remote eye examinations,
residential connectivity). While K-Net’s achievements reflect the technical savvy and political acumen of the network’s creators, they also derive from its First Nations roots. This influence is seen in its decentralized structure, which encourages resource pooling, knowledge sharing, and respect for local autonomy.

K-Net thus constitutes a (nearly) full-spectrum, community-driven, vertically integrated service provider oriented toward meeting the social and economic development needs of its primary constituents.

**SmartLabrador**

([HTTP://WWW.SMARTLABRADOR.CA/HOME/](http://WWW.SMARTLABRADOR.CA/HOME/))

SmartLabrador was Newfoundland and Labrador’s demonstration project under Industry Canada’s Smart Communities Program. It was an extension of the Labrador Information Technology Initiative (LITI), a grassroots community technology project created in 1997 as a joint partnership in local development (Peddle 2007). SmartLabrador was designed to pilot the use of new ICTs in this remote part of Canada, an area inhabited by roughly 30,000 Inuit, Innu, Métis, and settler peoples living in thirty-two isolated settlements, many of which face economic and social challenges that include high unemployment, low educational attainment, and high rates of violence and substance abuse. Initiated in the fall of 2001, the SmartLabrador network combined satellite, terrestrial, and wireless technologies to connect forty-one sites in twenty-five communities spanning an area of 300,000 square kilometres, an area roughly the size of Sweden, making it one of the largest broadband networks in Canada.

The SmartLabrador network provided the technical platform for a variety of services and applications, including video conferencing, distance education, telemedicine, e-government, and e-commerce. The SmartLabrador project piloted video conferencing applications in areas such as training, health care, and justice in order to explore the potential cost-savings of new technologies in a region where long-distance travel by any means is expensive and at times hazardous. SmartLabrador also developed an e-commerce site called the Heritage Mall, which enabled Labrador businesses to market their products and services to the outside world. One key priority was to ensure equal access to services in all communities connected by the network. To accomplish this, SmartLabrador installed regional staff to provide technical and IT development support and training at the community level. Although Industry Canada funding for SmartLabrador came to an end in December 2007, the project continues under the auspices of LITI, which seeks additional funding and new partnerships to sustain the project and its related services.
ST. CHRISTOPHER HOUSE
(HTTP://WWW.STCHRISHOUSE.ORG)

For nearly a century, St. Christopher House (St. Chris), a non-sectarian social services agency in west-central Toronto, has provided a range of services and support with the goal of “enabling less advantaged individuals, families and groups in the community to gain greater control over their lives and within their community,” according to their mission statement. To this end, St. Chris delivers a broad range of community-based social services to over 15,000 clients a year, of all ages, through drop-in centres, employment and skills training (including computer and Internet training), language and literacy courses, and legal, recreation, and supportive housing services. St. Chris’s holistic approach focuses on individual and community development and also advocates for the rights of the less advantaged through the development of social policy.

The St. Chris catchment area is one of Toronto’s most diverse and changing neighbourhoods, characterized by a range of income levels and residents who represent over sixty ethno-cultural backgrounds and speak some forty different languages. St. Chris has responded to the changing needs of the community with a variety of innovative programs. For example, the Employment Preparation Program (EPP) supports the unemployed with individualized Return-to-Work Action Plans that take into account language and literacy skills and that identify other barriers (housing, daycare, transportation, and so on) to finding good, long-term jobs. EPP is among the many programs at St. Chris that take advantage of free access to computers and the Internet.

In 1999, St. Chris launched its Bang the Drum program, with financial assistance from the federal Community Access Program. Bang the Drum provides access to more than seventy computer terminals with high-speed Internet service across St. Chris’s seven locations. St. Chris later envisioned an online community portal that would complement the organization’s programs and activities and would be based on content provided by staff, volunteers, program participants, and the wider community. Launched in 2005, the federally funded Community Learning Network (CLN) initiative resulted in an organization-wide, open source content management system, designed using a participatory approach, to support user-generated content, information sharing, online communication, and self-directed learning.

VANCOUVER COMMUNITY NETWORK
(HTTP://VCN.BC.CA/)

Founded in 1993, Vancouver Community Network (VCN) offers a variety of free networking services to individuals and non-profit groups in Vancouver
and elsewhere in British Columbia, including dial-up Internet access, computer training, email accounts, listservs, and website hosting. As many as 11,000 individual users and more than 1,200 non-profit groups have made use of its services. VCN hosts over a hundred listservs on its Sympa system, enabling individuals and groups to set up electronic mailing lists in order to share information and discuss issues of mutual interest and concern, ranging from the arts and culture to politics, health, and sports. The organization has a volunteer board of nine members, over fifty active volunteers, and a thousand donors. Encouraging broad civic participation in the use of electronic public space is one of VCN’s primary missions. VCN provides network access, training, and technical support to community-based non-profit groups with a view to enabling them to more effectively accomplish their goals in the areas of community development and civic participation. In partnership with the federal government, among others, VCN launched the 604 Connect! program, through which over four hundred non-profit groups in the area acquired Internet access, along with training and support.

In 2001, VCN launched its Community Learning Network pilot program, which was designed to explore the effectiveness of community networking in support of community development and local civic participation. It worked closely with numerous community groups and community centres to develop interactive websites that would allow their programs to become better known and more accessible to the local community.

Many of VCN’s public computing initiatives focus on using new ICTs to organize and empower marginalized individuals and groups. As part of the federal CAP program, VCN has coordinated as many as 250 public Internet access sites throughout the region. Many of these sites are situated and designed to serve the poor, new immigrants, youth, and the homeless, including the residents of Vancouver’s Eastside neighbourhood, one of the country’s poorest urban areas.

In 2003–4, in conjunction with the West Coast Democratic Workers’ Association, VCN helped to develop and run the Computer Literacy Project computer training program, which is specifically designed to meet the needs of domestic workers. Other VCN projects have included the development of a Spanish-language portal containing community, health, and legal information and resources, and, in partnership with the 411 Seniors Centre, the Seniors Gateway to Legal Information and Resources, which seeks to empower seniors and their advocates by providing them with better access to benefits, services, and programs.

In 2010, VCN was able to move its six-workstation Special Projects office to the restored Woodwards Building on West Hastings Street, after the Vancouver City Council approved the organization’s application to use a portion
of the building. This move to a more central location helped to extend the VCN’s outreach to a broader community.

Operating CAP and the CAP Youth Initiative is an ongoing and rewarding focus of the staff at VCN. Recent concerns that federal funding to CAP may come to an end has the staff and the board of directors searching for means to continue the significant positive outcomes of the program should funding be discontinued. Another ongoing concern lies with the availability of faster Internet services to VCN members. While in many cases dial-up service is adequate, the staff and board members are aware of its limitations and stay abreast of potential alternatives, which have thus far proved prohibitively expensive.

WESTERN VALLEY DEVELOPMENT AGENCY

The Western Valley Development Agency (WVDA) was a non-profit organization based in Cornwallis, Nova Scotia. As one of thirteen Regional Development Authorities in the province, the WVDA was supported by federal, provincial, and municipal funding. Organizationally, the WVDA was made up of a volunteer board of directors, six core staff, and a variety of project staff whose numbers fluctuated depending on the programs that were being run through the WVDA at any given time. The WVDA was created in 1994, at a time of intense economic crisis for the rural Western Valley region and its roughly 45,000 inhabitants. The groundfishery, which had been an important source of employment throughout the history of the Western Valley, had suffered collapse in 1992. Additionally, the federal government had announced the closure of CFB (Canadian Forces Base) Cornwallis, which, at the time the WVDA was founded, employed more than seven hundred people. Clearly, given the high levels of unemployment, the WVDA was facing an uphill battle (Peddle 2005).

The WVDA focused on community economic development across all areas of the local economy. Much of the organization’s activity focused on information and communication technology development. The organization was involved in supporting thirty-five Community Access Program sites, as well as in the creation of three digital collections websites, the delivery of the federal VolNet program (which supports technology adoption in voluntary organizations), the creation of a virtual community resource centre, and an e-business support program. By far the largest and most ambitious community informatics project that the organization undertook was its Smart Communities demonstration project, FUNDYweb, supported by a $5-million grant from Industry Canada’s Smart Communities program. The centrepiece of FUNDYweb project was the deployment of a community-owned broadband network, jointly owned by the seven Digby and Annapolis municipalities and
the Nova Scotia Community College, consisting of 144 kilometres of dark fibre that completes the area’s broadband loop from Halifax to Yarmouth and back along the South Shore. On the strength of these and other initiatives, the WVDA received numerous awards from a range of organizations, including UNESCO, the Province of Nova Scotia, and the Intelligent Communities Forum (MacNeil 2004).

Meanwhile, the activities and growth of the WVDA coincided with the economic resurgence of the region. Ten years after the formation of the WVDA, the economy of the Western Valley had diversified, and the former CFB Cornwallis had become a business park employing over nine hundred people. Unemployment in the region had declined significantly as well, from 16.3 percent in 1996 to 12.2 percent by 2001. While the organization did not claim exclusive credit for this dramatic shift toward a rejuvenated, sustainable rural economy, it prided itself on stimulating community-based innovation (MacNeil 2004).

Owing to a confluence of factors, including governance struggles and ideological conflict, the WVDA closed permanently at the end of August 2005. Currently there is no comparable community economic development association serving the Western Valley from Middleton to Digby Neck. The FUNDYweb broadband network remains in operation, despite the absence of its former host organization. Responsibility for the network has been assumed by the municipalities, as have the other former functions of the WVDA.

**WIRELESS NOMAD CO-OPERATIVE INC.**

Founded in 2005, Wireless Nomad Co-operative Inc. was a small co-op Internet service provider (ISP) that primarily served residents and small businesses in the greater Toronto area. Wireless Nomad was incorporated February 2005 and began operating its network soon after that. It resold Digital Subscriber Line (DSL) Internet service from Bell Canada, initially providing subscribers with a DSL modem and a wireless router. The wireless router was a modified commercial unit (802.11g standard) that allowed for signal sharing among other Wireless Nomad account holders, both those who paid for their subscriptions and those who held free accounts. Paid account members became part of the Wireless Nomad co-operative, which convened meetings of its members every few months to discuss the status and direction of the ISP, as well as wireless access issues more broadly. The Wireless Nomad sharing system worked on a priority access model. The “owner” of the wireless router (a node) received full bandwidth access to their Internet connection via wired or wireless use. Other Wireless Nomad co-operative members could connect to the wireless signal broadcast via the router and thus access the Internet. Anyone who could detect the Wireless Nomad signal could also connect to...
the Internet for free, albeit at a reduced bandwidth rate. Ideally, this would have created a self-expanding network of wireless access for Wireless Nomad users. Increasing numbers of nodes would mean that more people would become aware of the benefits and, by becoming subscribers, would increase the value of membership, and so on through a network effect.

At its peak, in early 2007, Wireless Nomad had grown to include 126 physical wireless nodes, with a total of over 3,500 users (both paid and free accounts). However, a series of technical setbacks, including server failures and connectivity issues, led to a gradual decline in paying users. Wireless Nomad ceased operations in March 2009, after transferring all remaining members to Teksavvy Solutions Inc., a private independent ISP.

REFERENCES