

# **Bridging the Digital Divide in Atlantic Canada Communities**

by Dr. Vanda Rideout,  
Department of Sociology,  
University of New Brunswick

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\* This report was prepared with the editing help of Mary Milliken

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# Summary

## *Newfoundland and Labrador*

Newfoundland and Labrador have long histories of community organizations that, for the most part, tend to work together to identify community social needs, and to deliver local services in the out-port locations. Examples include the public school boards, the regional development boards, community radio and television, the community colleges, public libraries, community centres, Memorial University, unions, the fishing industry and out-reach literacy groups. Often these community organizations work in conjunction with local HRD offices and with provincial and federal governments.

What is interesting about Newfoundland and Labrador is that when one considers the province's population there are more CLNs in the province than in either Nova Scotia or New Brunswick. Why is this? Is it likely that communities in the province are more knowledgeable about the program, or do community groups and organizations have a greater understanding about local social needs and service delivery? If this is so, then it would benefit the other Atlantic provinces to gain information about their best practices. However, the major problem that CLN's face is long term secure funding. It is important to keep in mind that CLN's of Atlantic Canada are under-represented when compared to other provinces such as British Columbia and Ontario.

In Newfoundland and Labrador, there are still a couple of challenges regarding CLN development primarily in the areas of CLN development and pilots which have not occurred in Labrador, and that there is not enough sharing of knowledge with CAPS. As noted by the provincial manager of the CAP program, often modern information communication technologies are not available to many of the people who live in the remote and rural communities. Federal government departments do not always comprehend the remoteness of many of the communities

in these provinces and others. It is one thing for a government to make predictions that ICT and the information highway will end geographic distance. It is quite another thing to ‘make it so,’ in order for all Canadians to benefit from the information society and the knowledge economy. What this indicates is that the digital divide is also evident in Canadian communities, and in order to understand its extent, more in-depth research is needed.

## *New Brunswick*

Both the CLN and the CAP programs in New Brunswick show a strong commitment to resolve the sustainability issues they will face once both programs end. This resolve appears to be rooted in self reliance and determination that is also tied into entrepreneurial solutions to community access and learning networks.

There is a great deal of enthusiasm for CAP in the province which is cultivated and maintained through a variety of means by Connect NB Branché. Although the many successes of CAP are championed, it is difficult to ascertain what short term and long term problems may arise. This may prove difficult when putting forward policy recommendations.

What is noticeable in New Brunswick is that although there are a number of CAP sites, few of them have evolved into grass roots community learning networks. Currently there are only three CLN pilot projects and none in the development stage. This could be due to a lack of knowledge about the program, or it may be that what works so well in terms of CAP management may also contribute to the stifling of community development which could translate into successful CLN pilots that are social-needs based.

## *Nova Scotia*

The large number of CAP sites in Nova Scotia and the early development of innovative access models has only translated into three CLNs, with a couple in development stage. Of the three projects, the survivability of the Virtual Community Resource Centre is questionable. The major problem appears to be the lack of cooperation and frustration between the sponsor organization ChibuctoNet and VCRC. Consequently, what was a relatively simple request for more budget information before application approval has not occurred in over a year.

The Bay of Fundy Marine Resource Centre is a good example of a community driven CLN. Using GIS technology and drawing from more than 30 community organizations and associations, the network is working to meet the social needs of marine communities. Whether this will continue once funding for the pilot project ends is, however, a big question. Until the spring of 2001 this area of the province was not able to take advantage of modern information highway technology. This unequal situation puts rural and remote communities at a disadvantage when they are compared with the larger urban metro communities. Once a rural community does have access to full IH technology and networks, invariably they will constantly have to catch up to the larger, technologically superior centres. As is the case with the CLNs and CAPs in Newfoundland and Labrador and New Brunswick, long term sustainability is a very crucial unresolved issue for OLT.

One exception is the implementation of the 'smart communities' program. Both the Bay of Fundy Marine Resource Centre and the Western Valley Development Corporation (including the Bridgetown CAP) were successful in obtaining smart community funding. With the awarding of only one smart community in each province and extreme competitive aspect of this program very few communities will be able to benefit from the ensuing information communication technologies, systems and significant funding.

## *Prince Edward Island*

Overall, there are a number of challenges for the P.E.I CAPs. In addition to whether the sustainability issue is resolved, concern was also raised about the recent expiry of the MOA. The CAPs that are better able to handle their operating expenses are the one that have paid facilitation in Learning and Opportunities Centres, community centres and in libraries. Those that are located elsewhere often first respond by reducing their hours of operation.

Because the Agreement is tied to youth employment in the province there is a strong possibility that sites may not have enough workers and volunteers for the summer months. Volunteer burnout and student volunteers who do not show up at sites can cause major problems. Other problems revolve around the physical location of CAP sites. When they are located in public libraries, service fees are prohibited. When the site is located in a public school, access after school hours may be a problem along with security and whether a custodian is present, or if the actual location of the CAP site has doors that can close the site from the rest of the building.

Based on site research Level I and II CAPs are in the process of evolving into community networks. With only one CLN in the development stage, OLT needs to aggressively pursue a more thorough understanding of the CLN program, and particularly both TechPEI and the actual CAPs.

# Context

In the 1980s and the early 1990s, the Canadian government took the first steps toward reforming the policy, legislative and regulatory framework for telecommunications and broadcasting. Those steps encouraged competition and new services, as well as the conversion of these communication systems which helped in the transition to an information society and knowledge-based economy. The strategy for this shift to an information/knowledge society is laid out in the Information Highway action plan. The plan includes an inter-departmental approach involving Industry Canada, Canadian Heritage and Human Resources Development Canada. These departments have focused on carrying out core objectives to deal with jobs, cultural identity and sovereignty, and affordable access to the electronic highway.

Under the auspices of the Department of Industry, the Information Highway strategy was developed further by the Information Highway Advisory Council (IHAC). The framework guiding the work of IHAC and the other federal departments centered on issues such as access, life long learning, linking jobs to innovation, government services on-line, and increased competitiveness and economic growth. In its final report, IHAC identified information and communications technologies as required infrastructure for a knowledge-based society. Supporting the view that geographic obstacles can be eliminated, and that regional and local communities can be strengthened in a knowledge-based economy, IHAC recommendations included rural access to the information highway, government funding for community access initiatives - including libraries, schools and not-for profit community networks and sites, government funding to develop public and non-commercial content, as well as the availability of government information and services in electronic and traditional formats.<sup>1</sup>

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<sup>1</sup> *Preparing Canada for a Digital World*. The Final Report of the Information Highway Advisory Council, Canada 1997.



## *Community Learning Networks*

In varying degrees, all federal government departments are involved in achieving the IHAC objectives. However, the two departments that have been most active in addressing social uses of the information highway are Industry Canada (IC) and Human Resources Development Canada (HRDC). HRDC's access program, Community Learning Network (CLN), operates through the Office of Learning Technology. As of 1999 OLT's mandate was expanded to include support for life long learning with 30 million dollars in grant funding for CLN project development and full pilot projects. The aim of the program is to provide multi-point access, within and across communities to foster formal and informal technology-based learning networks (outside institutional settings). As such the program targets youth, literacy, skills and training, and community and individual development to encourage life long learning. That is, CLNs help adult learners to gain the knowledge and skills needed to meet the demands of an information-based economy.

Individual projects receive \$25,000 for the development phase. Successful CLN applications may receive from 50 percent up to \$250,000 for a maximum of three years. Full projects are evaluated by a panel of non-government personnel using the CLN assessment criteria spelled out in the OLT application guidelines.<sup>2</sup> To date there are 60 active pilot projects and 49 in development phase (B. Malenfant, March 19, 2001).

The primary goal of Community Learning Networks is to facilitate learning, training, networking and community development and control at the local level. Because CLNs do not normally fund the implementation and maintenance of technological infrastructure such as Internet access and costs of connectivity, the program relies instead on existing networks and Internet connections such as those offered by the Community Access Program or other information communication technologies. It is expected that project sponsors will have an established track record in developing or delivering community-based technology-assisted

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<sup>2</sup> Community Learning Networks (CLN) *Initiative Guidelines for Application*, p. 4.

learning opportunities. Partnerships may include the voluntary sector, co-operatives, sector councils, band or tribal councils, labour or professional associations, provincial governments, municipal governments, libraries, schools or federal departments or agencies. The analysis of the CLNs in this report reveals that community based initiatives would probably not have taken place without established locally based partnerships built around the sharing of resources and common goals. Generally the range of partners is quite broad in that it usually includes different levels of government, community service providers, education organizations, local public libraries and the private sector.

### ***Community Access Program***

Similarly, Industry Canada undertakes a number of initiatives through the Information Highway Application Branch to address different dimensions of the Information Highway agenda. They include the Community Access Program (CAP), SchoolNet, VolNet and Computers in the Schools, among others. The CAP program is the one that is most centrally concerned with local public access to the information highway through the Internet. The primary goal of the CAP initiative is to establish 10,000 access sites to the Internet across Canada; 5,000 in rural and remote areas and 5,000 urban ones.

Created in 1995, CAP provides not-for-profit organizations such as educational institutions, public libraries, community centres, community freenets, as well as municipal and territorial governments, with funding for Internet connectivity (Industry Canada, 1997). Maximum funding can be up to \$40,000 but is usually less than this as a result of the program's partnership arrangements with provincial and territorial governments, communities, and businesses. The program also covers the cost of computers, an Internet service provider (ISP), and training. These costs do not, however, take into account the unpaid volunteer labour that has been provided to teach Canadians how communication electronic links can be used for individuals and for community development.

Initially the program was to help connect 1,000 rural and remote sites to the information

highway. The program has succeeded in establishing 4,544 centres in 3,200 rural and remote communities. For the most part rural CAPs are located in public libraries (1,823), schools (1,082), municipal government facilities (332), community-based facilities (507), and business sites (177) (Industry Canada, 2000). It was expected that 5,000 urban CAP sites will also be set up in similar public locations by March 31, 2001. At the end of the public access program the federal government anticipates that it will have invested 196 million dollars in these sites. For the Atlantic region the program requires a 'Memorandum of Agreement' (MOA) between Industry Canada and each of the provincial governments (Industry Canada, 1997). Partners from the private sector provide in-kind contributions such as telecommunication services or donated equipment. It is important to point out however, that although private contributions have occurred, for the most part they have been minor, with the lion's share of CAP funding coming from the federal and provincial governments (OLT, 1998:14). The findings from the site research conducted in the Atlantic region indicates that there is strong support for CAP.

Essentially these government programs have been put in place to address inequality problems that are surfacing as we shift to an information/knowledge society. Public and private research conducted by Statistics Canada<sup>3</sup> and Ekos Research & Associates Inc.<sup>4</sup> has documented the importance of home communication services, including access to the Internet, as a requirement for full participation in this type of society.

Current research also identifies growing inequality based on income, education, geography, gender, race and ethnicity, which can be specifically attributed to business and government in their push and support for a knowledge economy. The terms used to describe these inequalities range from information 'haves' and 'have nots' (Statistics, Canada, 1999), the 'digital divide' (U.S. Department of Commerce, National Telecommunication and Information Administration, 1999)

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<sup>3</sup>. P. Dickinson and J. Ellison, "Canadians Connected," 1999; P. Dickinson and G. Sciadas, "Getting connected or staying unplugged: The growing use of computer communications services," 1999.

<sup>4</sup>. *The Information Highway and the Canadian Household*, Ekos Research Associates Inc., 1998; *Rethinking the Information Highway: Privacy, Access and the Shifting Market Place*, Ekos Research Associates Inc., 2000.

and the 'dual digital divide' (A. Reddick, 2000). Although this research is useful in identifying this major problem, the drawback is that it focuses on individual household access to the Internet. An overview of information society government policy, to date, reveals that there are no policy mechanisms in place for individual (household) access to the Internet (Rideout, 1999). As previously stated the federal and provincial programs and policy initiatives that have recently been put in place target community access and community network development. What this means is that the research on individual access needs to be augmented with research that uses a community level of analysis to investigate whether the CAP and CLN programs are helping to bridge the digital divide in Atlantic Canada, and in the other regions of Canada.

# Methodology

The Office of Learning Technology provided a list of CLN development and pilot projects including their locations, the organizations involved and individual contact people in the Atlantic region. In depth interviews were conducted with three CLN contact people in Newfoundland, two in Nova Scotia, one in New Brunswick, and a recent pilot in Prince Edward. In addition to the interviews, one CLN site visit was made in New Brunswick, Newfoundland and Nova Scotia.

The Information Highway Application Branch provided a list of Industry Canada (IC) regional contacts for CAP in Newfoundland and Labrador, New Brunswick, Nova Scotia and Prince Edward Island. Industry Canada's regional personnel provided a list of the provincial departments, organizations, and individuals responsible for CAP management. In depth interviews were conducted with IC personnel involved in CAP in each of the provinces, as well as the government departments that manage CAP such as: the Department of Education in Newfoundland; the Information Highway Secretariate in Nova Scotia; the Department of Technology in Prince Edward Island, and a separate government organization, Connect NB Branché that manages the New Brunswick CAP program, reporting to the Department of Education. A copy of the joint federal and provincial governments' Memorandum of Agreement (MOA) was also provided.

The research objectives are to provide:

- a deeper understanding of the impact on communities as Atlantic Canada shifts towards an information/knowledge society;
- an investigation into how the CAP/CLN programs create opportunities or problems, for community groups and organizations;

- a better understanding of how Atlantic communities are using these programs to bridge the ensuing digital divide.

### ***Community CLN/CAP Interview Research Questions***

#### ***General questions:***

- Does community access to the Internet in Atlantic Canada limit or contribute to a digital divide as the region shifts to an information/knowledge society?
- Are rural and remote communities able to eliminate geographic obstacles in an information society ?

#### ***Specific questions:***

- Who are the community organization partners?
- Is the site a virtual community or is it located geographically and where?
- How does the CLN or CAP program address community cultural, economic or social development?
- How does the CLN or CAP program help to overcome community development disadvantages and inequalities?
- What are the roles and views of the community organizations involved in CAP or CLN?
- How do the community economic and social conditions affect the success or failure of CAP or CLN?
- What are the community experiences and views of the CAP or CLN programs? What are the benefits and drawbacks?

# Newfoundland's Community Learning Networks and Community Access Program

A significant proportion of the population in Newfoundland and Labrador are employed in the resource sector, primarily in fishing and forestry. Increasingly, the service sector (trade and commerce and tourism) employs a larger percentage of the population. As of January 2001 the unemployment rate for the province was 16.3 per cent which is more than two and one half times that of the national average. Whereas youth unemployment, for the same period, is 25 percent.<sup>5</sup>

Unlike the population growth that has occurred in the other three Atlantic provinces, the population in Newfoundland and Labrador has dropped to 539,000 as of the year 2000, from 561,000 in 1996. This depopulation is directly related to the moratorium that was placed on the cod fishery in 1992. For the last 500 years the cultures and economies of Newfoundland and Labrador have been based on a way of life in which more emphasis was placed on employment, for fishers and loggers, and less on education. The current emphasis, by business as well as federal and provincial governments, is on the information/knowledge economy. The impact of this shift has resulted in a re-examination, at a number of levels, on the value of education for employment as well as social and economic growth. The percentage of the population with less than a grade 9 level of education has improved from 36 percent in 1978 to 18 percent as of 1998. However, it should be noted that this 18 percentage is still significantly higher than the national level of 11 percent (1998) of the population with less than a grade 9 education. Of the adults in the province between the ages of 25 to 54, 29 percent have less than high school education. Consequently many CLNs in the province are geared to address education, literacy and skill

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<sup>5</sup> Statistics Canada, 2001. *Labour Force Information*. Catalogue no. 71-001-PPB, p. 14.

upgrading.<sup>6</sup>

## ***Community Learning Networks***

Currently, Newfoundland and Labrador have 5 active pilot projects and 2 in development phase.<sup>7</sup> Table 1.1 provides the name and the location of the CLN, the organization involved in developing the CLN, and the name of the contact person. The following 3 CLNs were selected by Michael Williamson and Dr. Vanda Rideout.

**Table 1.1**

### **Newfoundland CLNs**

<b>CLN</b>	<b>Location</b>	<b>Organization</b>	<b>Interview with Contacts</b>
Sharing Our Future	Stephenville	Community Education Network	Tom Hastings (CEN) & Dr. Ivan Emke (partner) Sir Wilfred Grenfell College (Memorial University)
Northern Community Learning Network Inc.	Northern Peninsula	School District # 2, Northern Peninsula, Labrador South	Roger Nippard
Promoting and Sharing a New Model Through Technology	Shoal Harbour	Random North Development Association	Michelle Brown

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<sup>6</sup> Random North Development Association, 2000; A Strategic Literacy Plan for Newfoundland and Labrador, 2000.

<sup>7</sup> Office of Learning Technologies, March 19, 2001.



All interviews were conducted at the Newfoundland CLN conference “Building Community Learning Networks,” in October, 2000. The major advantages of conducting the interviews at the conference were expedience and reduced travel costs, considering the various CLN locations in the rural northern, western and eastern areas of the province. One site visit was conducted in the town of Bonavista.

### ***Stephenville - Sharing Our Future (SOF)***

The ‘Sharing Our Future’ (SOF) CLN developed by the Community Education Network is located in southwestern Newfoundland. It encompass the five communities of Stephenville, McKay’s, Port aux Basques, Burgeo and Ramea. SOF’s mission statement discusses the lifelong learning culture and the promotion of personal enrichment for healthy sustainable communities. Community is defined as something that is inclusive involving wide participation across the generations so that local people can take ownership of the CLN project, as well as generate community self-confidence. SOF’s objectives include:

- ❑ the promotion of public awareness and participation in community communications; and
- ❑ the establishment of the job descriptions for community communication facilitators.

Partners include the following: Cormack Trail School Board; Communities in Schools Newfoundland; Long Range Regional Economic Development Board; Ryakuga Grassroots Communications; Conservation Corps Newfoundland and Labrador; Association regional de la cote ouest; Port au Port Economic Development Association; Bay St. George South Area Development Association; Ramea Broadcasting Company; Community Education Network; Burgeo Broadcasting System, Communication for Survival; Ramea Economic Development Corporation; Long Range Regional Economic Development Board; College of the North Atlantic (community college); Sir Wilfred Grenfell College (Memorial University); Community Access Program (CAP); and the Office of Learning Technology (HRDC).

SOF evolved out of the Newfoundland and Labrador development work and community education extension programs that were put in place in the 1960s. It too is guided by the concept of participatory communications. Encouragement has been fostered for the production relevant communications content by using a number of technologies such as television, radio, print, photography, webcasts, community forums and video conferences. In addition there has been strong provincial support for community radio and television. The community television channel and community radio is important as a communication mechanism for providing information for the people who live in the out-port communities.

What is unique about this particular CLN is that all the content is community oriented and it is produced by local people. People are encouraged to identify major economic and social issues for content development. One television production example was the community forum on economic development. This forum dealt with the decline in the cod stocks in the early 1990s and the moratorium that was place on the cod fishing industry which resulted in the displacement of fish plant workers and fishers in this south western region. Other related issues that warranted content development included the federal government's changes to employment insurance (EI). Content production also included the clean up of the waste left by the closing of the military base in the area, forestry problems with clear-cutting, environmental and health issues, access to water, and community discussion on establishing a youth centre.

As previously stated, community television content is planned by people who live in the area. In addition the technology is operated by young people who have been trained at the College of the North Atlantic, or Sir Wilfred Grenfell College. Both colleges work together to provide courses and training in journalism, community studies, multimedia and new technology processes, among others. Memorial University also provides in-kind help in the form of computer technical support and web space. Forums include telephone call-ins, local entertainment, scenes from the area, young people reading local news, seniors showing pictures of the past, combined with discussion of local issues.

“Sharing Our Future” has also constructed a web site (<http://galaxy.swgc.mum.ca/cnctech2/AV/av.htm>) which helps link that SOF community with other Newfoundlanders who live in other parts of the province or elsewhere, by webcasting local events. Plans are underway to archive the webcasts and make them available to any one with an Internet connection.<sup>8</sup> URLs: Sharing Our Futures, website <http://www.ryakuga.org.cis> discussion board: <http://www.glinx.com/~ryakuga/sharing/sharing.html>

The Stephenville CLN is not, however, without problems. The most serious of these is long term sustainability. The major push over the next 2 to 3 years will be to get the people in the community thinking about how to solve the funding problem to keep SOF in operation once the project ends. Most of the partners understand the importance of building community capacity through activity. A number of events have been planned throughout three years, however, they are time consuming and there is no guarantee people will continue to be interested in SOF. Mr. Hutchings speculates that community interest may be due to SOF’s newness. He also noted that it is always a challenge to get community groups working together - because many are protective of their own organizations.<sup>9</sup> Because of past experiences with other federal government programs CLN project organizers expressed scepticism about both the CAP and CLN programs.

“You swoop in with all this stuff into the community [and] you get the community all riled up.”<sup>10</sup>

What the Stephenville group found surprising about their CLN application was the degree

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<sup>8</sup> Presentation by Tom Hutchings and Ivan Emke “ The role of participatory communication in supporting communities, fostering learning and building networks,” to the Building Community Learning Networks Forum, 18-19 October 2000 Newfoundland, prepared by Ms. Ina Marsh Random North Development Association. Interviews with T. Hutchings and I. Emke, October, 2000.

<sup>9</sup> Interview with T. Hutchings, October, 2000.

<sup>10</sup> Stevensville, Nfld. interview, October, 2000.

of flexibility and control afforded to the community to develop a program to meet their community needs. In SOF's view OLT's CLN program is much more innovative than other HRDC programs that tend to be top-down driven.

Other problems occurred when the SOF organizers tried to meet the objectives of one of its partners, the Stephenville CAP. What they found was that CAP objectives often jeopardized CLN objectives. Frustration was also expressed about the amount of paperwork that was required for \$20,000 of CAP funding versus the larger grant of \$250,000. Some of these problems originate in the CAP joint funding arrangements between federal and provincial levels of government. CLN projects, on the other hand are 50 percent funded by only one level of government, the Office of Learning Technologies (HRDC). Although SOF did not have trouble with the application, the organizers noted that a certain level of grant writing expertise is required along with organization budgeting experience.

### ***Shoal Harbour - Random North Development Association***

The CLN "Bridging the Gap from Education to Employment" (BGE) helps to integrate a number of small communities in Zone 15 such as Bonavista, Catalina, Clarenville, Shoal Harbour and Trinity Harbour, among others. This CLN arose out of the Random North Development Association's literacy program that involved discussions between the local people and an outreach literacy worker. The outreach worker identified the difficulties that a number of local people experienced when they made the transition from education to the workplace.

BGE's model takes a holistic approach to community economic/social development. The partners worked towards a common goal to promote, encourage and facilitate social and economic development. At the same time the CLN project was a good fit with the existing mandate of the partners. The partners worked together to share their expertise to identify and promote existing programs, services and resources. Partners include the: Bonavista Area Regional Development

Association; Vista School Board (Clarenville); HRDC (provincial - Bonivesta); Keyin College (Clarenville); United Food and Commercial Workers' Union; Provincial Department of Development and Rural Renewal; Atlantic Marine Products Inc. (Catalina); Discovery Regional Development Board (Zone 15); Ability Employment Corporation (Clarneville); Provincial Learning Centres Inc. (Bonavista); College of the North Atlantic (Bonavista); Human Resources Client Centre (Clarenville) and Random North Development Association (Shoal Harbour).

The CLN model works in two ways. First it works with businesses and companies that are about to expand. And, second it assists sector development for new businesses in the province. A pilot project was tested at Atlantic Marine Products Inc., (Catalina, Trinity Bay) with the help of the local union, United Food and Commercial Workers. The problems that were encountered included union and social issues related to training the participants to make sure workplace training met the academic and practical needs of the participants and the company.

The pilot provided training for nine participants over a ten month period at a cost of \$39,000 each.<sup>11</sup> Participants had to meet two criteria: they had to be displaced workers; and not have a high school certificate. Training was aimed at three levels of development, individual, community and economic. Individual skills included teamwork problem solving, communication skills, decision making and job conduct. Life skills training included stress and time management, as well as assertiveness training. Workplace skills included understanding the role of unions, on the job health and safety, and the nature of the industry. Community development is also part of the training with emphasis on the importance of a high level of volunteerism, community partners working together and the promotion of a learning culture. For many participants the certificates they received from the College of the North Atlantic was their first recognition from an accredited school of their hard work and accomplishments.<sup>12</sup>

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<sup>11</sup> Bridging the GAP, 2000, p. 27.

<sup>12</sup> Presentation by Ms. Brown, RNDA, October, 2000.

As is the case with other CLNs sustainability is the biggest challenge and problem. Over the next two years Bridging the Gap (BTG) is conducting a public relations campaign to try to get buy-in from both federal and provincial policy makers. As Ms Brown pointed out sustaining BTG is not about asking for new funding. Rather the CLN looks at current programs and attempts to direct funding to the community so that it can deal with the specific social needs at the local level.<sup>13</sup> This includes BTGs financial partners, the community college, the National Literacy Secretariat, federal and provincial government program managers, as well as ACOA.

### ***Northern Community Learning Network Inc.***

A third CLN example, the “Northern Community Learning Network Inc.,” (NCLN) has evolved out of a broad based community coalition to develop a family resource centre network. NCLN is located in the norther peninsula in an area of the province that was particularly devastated by the cod fishery moratorium.

It was not until 1998 and 1999 that the region was able to benefit from information communication technology system improvements that permitted Internet access. These included extended service delivery, digital switching and the completion of the fibre optic network by NewTel and the Nordic Economic Development Corporation to upgrade and expand local dial-in service. The lack of adequate ICT infrastructure and limited local telephone calling areas meant that Internet access charges were prohibitively high for most people due to long distance service charges.<sup>14</sup> Once the fibre optic network upgrades were put in place, a number of CAP sites were also established in the public schools. The key organizations involved in establishing NCLN is School District # 2, for the North Peninsula and Labrador South. Although the federal government has maintained that having access to the information highway should eliminate

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<sup>13</sup> Interview M.s. Brown, RNDA, October 2000.

<sup>14</sup> Interview with R.Nippar d, October 2000.

geographic obstacles for remote regions of the county, the NCLN community learning network example reveals that essential ICT infrastructure has to be in place, otherwise whole communities become part of the digital divide.

NCLN's objectives include:

- ❑ providing access and promoting career and job information in electronic format;
- ❑ liaising with the regional organization Associations for Community Living to find a new model of service delivery for individuals with disabilities;
- ❑ working with community partners and the provincial Department of Health and Community Services in order to establish a youth centre for youth between the ages of 12 to 29 under the Community Youth Network initiative, part of the National Child Benefit Provincial Reinvestment program.<sup>15</sup>

NCLN is focusing on improving learning opportunities for youth. This is timely because the out-migration rate of youth is 8.7 percent, there has been a 134 percent increase in the social assistance caseload, and the youth unemployment rate was 50 percent throughout the 1990s. Other major social problems for the northern peninsula area can be attributed to the 18 to 48 percent of the population that has less than grade 9 education, and an illiteracy rate of 28 percent.<sup>16</sup> Bearing in mind the extent of these problems NCLN is addressing their community needs by working on greater access to library services for all area residents and by conducting workshops on how the Internet can be used to make community citizens aware of government information services. Distance learning opportunities have also been provided to assist community development organizations deliver adult literacy services.

For the Northern Community Learning Network, long term sustainability is a major concern, particularly after the pilot ends. The northern peninsula region has other infrastructure

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<sup>15</sup> Presentation by R. Nippard, Northern Community Learning Network Inc., October, 2000.

<sup>16</sup> R. Nippard presentation, October 2000.

problems such as fewer public libraries in the area that could provide public access to the Internet. This means that most of the CAP sites in the area are located in the public schools. The following section on the community access program in Newfoundland and Labrador discusses this issue in more detail.

### *Community Access Centres*

There is a Memorandum of Agreement (MOA) on Community Access that was reached between the Minister of Industry and each of the Atlantic provinces, including Newfoundland and Labrador. The signing provincial ministries include Intergovernmental Affairs and the Minister of Education. The agreement was put in place to help assist rural and urban communities establish public sites so that:

- people in the province could have convenient and affordable access to the Internet and the information highway;
- individuals could obtain knowledge skills to efficiently use information and communication technologies;
- provincial residents and organizations use the information highway to help achieve their individual, collective, social and economic goals, including exchanging information, transacting business, and accessing government programs and services<sup>17</sup>.

Established in September, 1998 the agreement terminated March 31, 2001. Public access issues and activities are coordinated through the Department of Education benefits from its distance education program that is delivered by a provincial organization called STEM NET<sup>18</sup>. Prior to the education department's management of CAP, Industry Canada implemented approximately half of the sites.

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<sup>17</sup> Memorandum of Agreement on Community Access, The Ministry of Industry and the Province of Newfoundland and Labrador, 1998.

<sup>18</sup> Interview with Patricia Williams, February 1, 2001.



To date 160 CAP sites have been established in Newfoundland and Labrador, serving 563 communities.<sup>19</sup> Of those, 21 sites are located in coastal and northern Labrador, Labrador City, Happy Valley and Goose Bay, 4 sites are Francophone, 11 sites are in urban centres with the remaining sites in rural/remote locations. The CAP sites are located primarily in public libraries (45%), public schools (45 %) and community or municipal centres (10%).<sup>20</sup>

Overall funding is available up to a maximum of \$40,000 over three years per site. Funding is disbursed so that \$20,000 is available in the first year to help with start-up expenses, \$12,000 is available in the second year, and \$8,000 is allocated for the final third year.<sup>21</sup>

A management committee is responsible for the CAP in the province. It is made up of two Industry Canada provincial representatives, the provincial manager, two program officers, a financial officer, a senior administrative clerk and a youth employment clerk. Although all are dedicated to CAP, they are not all funded by the community access program.<sup>22</sup>

What is unique about the Newfoundland and Labrador program is the Department of Education's link to the public schools and library systems, located in the Federal/Provincial Co-operation Agreement Directory with past experience in delivery of community services. The Canada/Newfoundland and Labrador Community Access Program (CLN-CAP), as it is called, is the main Administrative body for the program. CLN-CAP had continued to work closely with the regional Industry Canada office. A major partner is the Provincial Information and Library Resource Board. The Board has provided all CAP equipment such as computer and site installation through bulk tenders. In addition, the Board provides technical support for hardware

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<sup>19</sup> Industry Canada - Newfoundland and Labrador, CLN-CAP active sites as of February 26, 2001.

<sup>20</sup> Interviews with P. Williams, February 1, 2001 and Brian Evans, February 28, 2001.

<sup>21</sup> MOA, p.3.

<sup>22</sup> Interview with P. Williams, February 1, 2001.

and software once it is located on the CAP site.<sup>23</sup>

CLN-CAP staff consists of a manager, two program managers (responsible for the 72 sites under the MOA), a financial analyst, clerical workers and a communications coordinator. Responsibilities include establishing new sites, monitoring the whole program, establishing future goals such as moving to the next level, creating new partnerships and addressing the sustainability issue. CAP proposals are also evaluated by an independent CAP review committee. The committee looks for strong community-based partnerships of key organizations and groups. Communities must show how a CAP will meet the needs of the community, and identify the human resources needed to meet technical, user-training and management requirements. Proposals must include uniform standards for site-operation that should meet the following criteria:

- be open and accessible on average for 20 to 25 hours per week, or on service level that is appropriate to community demand or population, of which 8 hours must be between 6:00 p.m. and 10:00 p.m., or on weekends;
- the provision of 2 hours per week of introductory information sessions for the general public;
- have a fully operational Web site;
- have a person in charge of each site at all times;
- and show how the site(s) will be sustained after CAP funding ends.<sup>24</sup>

Other standards are technical in nature including access to the information highway using a browser such as Netscape or Internet Explorer, bandwidth that permit users to view the World Wide Web (WWW) at a modem speed of 19.2 kilobytes per second, and on-site technical support

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<sup>23</sup> Interview with B. Evans, February 28, 2001.

<sup>24</sup> MOA, Annex 1, p.7.

that may be provided by volunteers or an Internet service provider (ISP).<sup>25</sup>

The CLN-CAP manager pointed out that there are numerous challenges in running the program in the province. First of all, Newfoundland is a very large rugged geographic land mass, with over 131 CAP sites located in very isolated out-port communities. Labrador presents other challenges because there are few roads, and some communities are only accessible by boat or plane. There is major frustration with the federal government because the provincial CAP administrators do not think “Ottawa” understands the extremely challenging situation in the province. Equipment has to be flown into the various areas of Labrador and then set up. It is best explained in the following statement:

... when they call from Ottawa they think it’s a simple matter of jumping in a car, driving for an hour, and meet and greet people face to face, install some equipment and everyone’s got T1 connections and your on your way. We’ve had instances where we’ve had to have operator assistance to get on the Internet.<sup>26</sup>

Long term sustainability presents another major challenge which, in Newfoundland and Labrador, is again tied to connectivity charges. Geographic isolation has resulted in extremely high telecommunication connectivity costs for many of these communities. Although NewTel, the major telecommunications company, has committed to upgrading the telecom network in these areas, the change to cost-based pricing in a competitive telecommunication environment has negatively affected these rural and remote areas. Moreover, the small isolated calling areas have resulted in some CAP sites paying long distance charges upwards of \$1,000 a month. In addition to higher monthly basic connectivity charges, access to the Internet becomes very expensive for a not-for-profit CAP site that may already be having difficulty generating sustainable funds. Once an Internet service provider is established, connectivity charges can drop dramatically, often to \$40 a month.

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<sup>25</sup> MOA, Annex 1, p.8.

<sup>26</sup> Interview with B. Evans, February 28, 2001.

Other challenges at the community level include a lack of computer knowledge or the absence of perceived usefulness of the Internet. For isolated communities the Internet is very new, consequently for some the take up has been slow. And, when other new technologies such as ATM banking service are not provided in these communities, familiarity and experience with electronic services is nonexistent<sup>27</sup>. This means that using computers to access government services on line is still a long way off.

Recruiting volunteers is a also challenge, as is keeping them interested in CAP projects. Often what happens is that in a year or two volunteers burn out or they lose interest. This presents challenges to keep the sites open 20 or 25 hours a week, as required by the MOA. As pointed out by Mr. Evans about half of the rural CAPs operate on average about 15 hours a week. Mr. Evans speculates that once the funding runs out some of the rural CAP sites will have to reduce their hours of operation further.<sup>28</sup> He is of the view that those sites that have dedicated paid staff such as in libraries and schools may continue to remain open and meet the guidelines for hours of operation. It may very well be that without sustainable funding, some sites will close because they will not be able to generate a sufficient amount of revenue to pay staff, to pay their long distance service charges, or replace, repair and upgrade equipment. The CLN-CAP found that when Industry Canada initially ran the program out of the St. John's office, without enough staff in the field there is a tendency for the sites to become complacent. This is an indication that once funding obligations end, the commitment to public Internet access may end as well.

There are also sustainability issues that specifically apply to libraries or schools. The sustainability problem in libraries are related to library policies that state that they cannot charge for Internet use. This conflicts with the MOAs that require the sites find sustainable funding solutions. In addition there are tensions over unpaid work issues between a unionized librarian

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<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

work force and a CAP program that is volunteer based. Public school sites, on the other hand, present a different set of problems. By and large school CAPs are primarily used by youth, consequently for various reasons other people in the community do not like going to the schools to access the Internet. What has proved somewhat successful is putting a separate entrance to the CAP site on the outside the building. School sites also have other problems where community people and tourists are unable to access the Internet during summer, Christmas or other holidays.

## *Summary*

Newfoundland and Labrador have long histories of community organizations that, for the most part, tend to work together to identify community social needs, and to deliver local services in the out-port locations. Examples include the public school boards, the regional development boards, community radio and television, the community colleges, public libraries, community centres, Memorial University, unions, the fishing industry and out-reach literacy groups. Often these community organizations work in conjunction with local HRD offices and with provincial and federal governments.

What is interesting about Newfoundland and Labrador is that when one considers the province's population there are more CLNs in the province than in either Nova Scotia or New Brunswick. Is it likely that communities in the province are more knowledgeable about the program, or do community groups and organizations have a greater understanding about local social needs and service delivery? If this is so, then it would benefit the other Atlantic provinces to gain information about best practices. In Newfoundland and Labrador, there are still a couple of challenges regarding CLN development primarily in the areas of CLN development and pilots which have not occurred in Labrador, and that there is not enough sharing of knowledge with CAPS.

As noted by the provincial manager of the CAP program, often modern information

communication technologies are not available to many of the people who live in the remote and rural communities. Often federal government departments do not comprehend the remoteness of many of the communities in these provinces and others. It is one thing for a government to make predictions that ICT and the information highway will end geographic distance. It is quite another thing to ‘make it so,’ in order for all Canadians to benefit from the information society and the knowledge economy. What this indicates is that the digital divide is also evident in Canadian communities, and in order to understand its extent, more in-depth research is needed.

# New Brunswick's Community Learning Networks and Community Access Programs

The total population for New Brunswick as of December 2000 was 757,000. This represents an increase of 4,000 people since 1996<sup>29</sup>. There is, however, growing concern about a declining population since the last census. Forestry is considered the economic backbone of New Brunswick and is valued at approximately 1.5 billion dollars a year, employing about 16,000 people. The manufacturing sector provides some diversification in GPP by employing 51,200 people. For the most part, these jobs tend to be related to the resource and agriculture sectors such as paper manufacturing, fabricated metal products and food production. The fisheries and aquiculture industries together export 900 million dollars of goods yearly and are relatively labour intensive, employing 21,000 people. Mining is less labour intensive, provides employment for 3,500 individuals and is valued at 900 million dollars yearly. Agriculture generates 370 million dollars yearly providing 6,500 people with farm income.<sup>30</sup>

Due to the seasonal nature of these sectors the provincial unemployment rate is significantly higher than the national average. For example the unemployment rate as of February 2001 was 12 per cent up from the 10 percent figure in January. There unemployment figures are somewhat lower for women (7.5%) but higher for men (9.4%) and significantly higher for youth between the ages of 15-24 (17.1%).<sup>31</sup> When considering community CLN evaluation and analysis it is important to keep in mind that employment and unemployment rates by community may be lower or higher than the monthly provincial averages. In addition, the less diversified the

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<sup>29</sup> Statistics Canada, 2001 (<http://www.statcan.ca.english>).

<sup>30</sup> NB, 2001 (<http://www.gov.nb.ca>).

<sup>31</sup> Statistics Canada, 2001. *Labour Force Information*. Catalogue no. 71-001-PPB.

economy, the more potential there is for higher systemic unemployment.

## ***Community Learning Network***

### ***Télémentorat***

Currently there are three active CLN pilot projects in New Brunswick and none in development stage. A site research visit was conducted at the CLN Télémentorat. This CLN developed out of Centre du accès communautaire, the community access program site Dieppe Net. Raymonde Boulay of Télémentorat explained that Mr. Jean-Paul Desjardins of Groupe ADCOM Group Inc. manages the CLN. Groupe ADCOM is one of the many partners along with Neurotech, the New Brunswick Community College in Dieppe, ADCOM, a Native Association in Nunavut, the Canadian Association of Retired People, Développement d'un réseau d'apprentissage Communautaire pour les entrepreneurs à domicile du sud-est du Nouveau Brunswick (Société éducative du Nouveau Brunswick), and New Brunswick Community Access Centres Regional Training Assistance Program (RTAP - Connect NB Branché).<sup>32</sup>

Télémentorat's goals and objectives centre on the development of a mentorship entrepreneurial program. The philosophy behind this CLN is that through mentoring, the success rates of young business people can be improved. The three key aspects of the project include learning, information and mentorship. Télémentorat takes a niche approach by targeting youth and training them to offer their services on the world wide web (WWW). The learning component of the project includes life skills training as well as crisis management for young entrepreneurs. The project anticipates activity for two years and is financed with \$300,000 from OLT sources with the other 50 per cent funded by the partners. Télémentorat is of the view that their model could be reproduced for other parts of Canada, and elsewhere, by offering their services on the Web and by developing content for CAPs.<sup>33</sup>

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<sup>32</sup> Interview with P. Des Jardins, January 15, 2001.

<sup>33</sup> Ibid.



According to Mr. Desjardins the strongest element in the CLN is its community based initiative which makes use of partners expertise and strengths. For example, Neurotech developed and designed the software that the program uses and has also helped with the building of data based applications. The community college provides content development, whereas the Association of Retired People supplies retired entrepreneurs who serve as volunteer mentors.

Mr. Desjardins saw the development grant of \$25,000 as an important first step towards obtaining a successful funded pilot proposal . He found that the OLT staff was, and continues to be, very co-operative and collaborative. Nonetheless the community learning network is not without problems and challenges. A few minor problems were experienced during the first six months of operation; they were attributed to OLT form and reporting changes. The more serious problem is the long term sustainability issue. In an attempt to address the issue of long term funding Télémontorat has been involved in targeting a segment of the population who are willing to pay for the organization's services, and attracting additional sponsors. The major dilemma for the project, however, is how to balance the non-profit aspect as identified in the CLN guidelines, with revenue generation.

Future plans are underway to integrate Télémontorat into a larger project that is being developed in conjunction with another federal agency. Mr. Desjardins explained at the time of the interview that he would not be in a position to discuss how Télémontorat would fit into the larger project until the end of April, 2001. He did explained there was a strong possibility that the larger project would help resolve Télémontorat's sustainability issue. One solution that was being considered was approaching Revenue Canada for a tax reduction, rather than rely on OLT government sustainability.

### ***Community Access Program***

A Memorandum of Agreement (MOA) was signed between Industry Canada and the New Brunswick Minister of Economic Development, Tourism and Culture along with the Information

Highway Secretariat and its operating agency Connect NB Branché on July 13, 1998.<sup>34</sup> The project is funded by Industry Canada and the province with equal contributions of \$2,950,000.

At the time the MOA was signed 163 sites were designated as community access sites. As noted in the Agreement these public sites are primarily located in schools, with a few in libraries and other public locations. The MOA added another 68 sites for a total of 221, ensuring that all communities with a population of over 400 people are part of CAP in the province.

The New Brunswick MOA has a management committee made up of two Industry Canada and two provincial representatives. The NB CAP review committee conducts a competitive review of applicants and makes recommendations for funding. The program is, however, managed and monitored by Connect NB Branché. Proposals must reflect: a strong community based-partnership of key organizations and groups; show how the needs of the community will be met; include a 3 year budget plan; identify the physical location and technical and equipment infrastructure; and forecast how the site(s) will be sustained after CAP funding ends. Sites are required to be open and accessible for a minimum of 20 to 25 hours per week including 8 hours during peak times between 6:00 and 10:00PM. In addition there must be a person in charge of each site at all times.<sup>35</sup>

More up front funding is provided in the first year to help finance start-up expenses of up to \$20,000, with decreasing amounts over time, in the second year \$12,000 and in the third year \$8,000. Eligibility for funding under the Agreement includes a 50 percent contribution from the community from cash contributions from individuals or organizations, revenues from the CAP operation, in-kind contributions from organizations or individuals, and from sources other than the federal government. The province is required to acknowledge Industry Canada's contribution to CAP in any publicity and promotion efforts, and by displaying signs at the sites in both English

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<sup>34</sup> Memorandum of Agreement on Community Access, 1998.

<sup>35</sup> Ibid, Annex 1.

and French.

### ***Connect NB Branché and CAP***

As previously pointed out Connect NB Branché is the coordinating government body for community access to the information highway in the province. New Brunswick is one of the few province where half of the population of nearly 760,000 still live in rural communities. More recently the province has encouraged the development of the information technology sector, particularly electronic platforms for class centres among other things.<sup>36</sup>

As early as 1994-1995 New Brunswick was one of the first provinces to participate in a CAP pilot project with partner support from Industry Canada, NB Tel and the provincial Departments of Education and Economic Development, Tourism and Culture. Connect NB has succeeded in reaching the CAP goal identified in the MOA of 223 sites and currently has only 8 to 10 dormant ones.

Access is provided in following public sites:

- 163 in the public schools;
- 31 libraries;
- 21 in community centres and other centres.<sup>37</sup>

As noted by D. Roberts a few of the dormant sites were so successful (Deer Island) that most of the people in the community purchased a home computer. A provincial regional facilitator from Connect NB helped to overcome the inactivity of the Alma CAP site by setting up a new steering committee and developing a new vision. Connect NB continues to reassess existing, dormant and prospective sites. What the organization found was that in some cases after

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<sup>36</sup> Connect NB Branché, pp. 1-3.

<sup>37</sup> Interview with D. Roberts and Gary Wood, January 17, 2001.

the grant money was used to buy computers and equipment, enthusiasm started to erode. As noted by Connect NB:

... they [communities] wanted to talk about all the needs they had and we couldn't talk about that. We know if we put together all the needs in the community it would be nothing but a needy community at the end of the day. But if you could identify all the different resources from people ... and opportunities ... and how this could enhance all of this<sup>38</sup>.

It would appear that Connect NB interpreted these needs as technology and computer ones. It is possible, however, that these 'needs' could also be social or cultural needs.

Connect NB represents the province's network of CAPs, provides technology and Internet training, promotes economic and community development, and provides consulting and resource material for other provinces and countries interested in community access. Although N.B. CAPs are the outgrowth of grass roots organizations including partners that range from local business to community associations and agencies, they are regulated by Connect NB Branché. The NB Cap model focuses on new skills development and technological literacy by encouraging a "culture of technology"<sup>39</sup> as a way to overcome high unemployment and low educational levels.

From the beginning Connect NB's goal has been to make CAP sustainable. This has resulted in CAP revenue generation for numerous training programs that include: on-line high school equivalency (G.E.D), a 12 hour Internet training course, Java programming, mouse certification in both English and French, Microsoft certification, computer camps, community group and small business IT training sessions. CAPS also generate income from family or individual memberships. This revenue generation is used by the CAPs to pay various expenses such as line charges, heat and electricity. Connect NB pointed out that the CAPs do not charge

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<sup>38</sup> Interview with D. Roberts and G. Wood, January 17<sup>th</sup>.

<sup>39</sup> Connect NB Branché, p. 10.

people who use the sites if they can not afford the fees.<sup>40</sup>

There is a level of consistency in the NB CAPs site service and training that can be attributed to the CASE program - Canadian Access and Sustainability Employment. This three year program is available to people who qualify for E.I. The province funds 70 per cent of and the other 30 per cent is funded by the CAP centre. The CAP managers are trained for 16 to 18 hours. They are expected to act as entrepreneurs and take responsibility for the CAP site.

### ***Summary***

Both the CLN and the CAP programs in New Brunswick show a strong commitment to resolve the sustainability issues they will face once both programs end. This resolve appears to be rooted in self reliance and determination that is also tied into entrepreneurial solutions to community access and learning networks.

There is a great deal of enthusiasm for CAP in the province which is cultivated and maintained through a variety of means by Connect NB Branché. Although the many successes of CAP are championed, it is difficult to ascertain what short term and long term problems may arise. This may prove difficult when putting forward policy recommendations.

What is noticeable in New Brunswick is that although there are a number of CAP sites, few of them have evolved into grass roots community learning networks. Currently there are only three CLN pilot projects and none in the development stage. This could be due to a lack of knowledge about the program, or it may be that what works so well in terms of CAP management may also contribute to the stifling of social needs at the community level which could translate into CLN development.

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<sup>40</sup> Interview with D. Roberts and G. Wood, January 17, 2001.

# Nova Scotia's Community Learning Networks and Community Access Programs

Nova Scotia is the Atlantic province with the largest population of 941,000.<sup>41</sup> Over 33 percent of the population live in the only city of the province, the Halifax metro region. The economy in the province has benefitted from natural resource industries such as fishing, forestry and coal mining. More recently oil and gas reserves from Sable Island have contributed to economic improvement. The resource sectors employ about 19,000 people compared to the 230,000 who work in the service sectors, primarily in trade and commerce, also in finance, education and health care among others. The province also has the lowest unemployment rate at 8.8 percent as of February 2001.<sup>42</sup>

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<sup>41</sup> Statistics Canada, *CANSIM*, April 12, 2001.

<sup>42</sup> Statistics Canada, *Labour Force Information*, February 17, 2001, p. 12.

## *Community Learning Networks*

**Table 3.1**

### **Nova Scotia CLNs**

<b>CLN</b>	<b>Location</b>	<b>Organization</b>	<b>Interview with Contacts</b>
Marine Learning Centre	Cornwallis Park	Bay of Fundy Resource Centre	Arthur Bull
Virtual Community Resource Centre	Dalhousie University, Halifax	Chibucto Community Net	David Murdoch

### *Virtual Community Resource Centre*

The Virtual Community Resource Centre (VCRC) has its roots in the Canadian community freenet movement that developed in Canada in the early 1990s. Part of the philosophy behind the movement is that knowledge resides not only with the people, but with documents and software technologies, so that it must be available to meet community needs. Once community needs are identified, services are then delivered within a collective co-op model rather than a CAP training centre approach<sup>43</sup>

As one of the few virtual CLNs both in the region and in Canada, VCRC has a strong relationship with one of its partners the Department of Mathematics and Statistics at Dalhousie University. The major sponsor is the CAP ChibuctoNet. Other partners include the government of Nova Scotia, Tele-Communities Canada and the British Columbia Community Net Association (BCCNA). Commitments range from financial funding to in-kind commitments.

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<sup>43</sup> Interview with D. Murdoch, February 2, 2001.

In July, 2000 the VCRC proposal was conditionally approved, subject to the re-submission of a new budget and action plan to OLT by March 31, 2001. The virtual aspect of this CLN is based on software known as CFree or CSuite, which is available on CD in both English and French. CSuite is a collection of software application management tools and hundreds of custom scripts. The benefits of the CFree technology is that it contains all the software necessary for a community to install a complete ready-to-run Internet server. CFree also provides a number of end-user services that are managed by a web based interface. The CD package includes a number of CGI scripts, an Apache web server, a Lynx text based web browser, a Pine email program, and a Majordomo mailing list manager, among others.

Initial funding for the software development worth \$140,000 came from Industry Canada. To date approximately 20 communities across Canada, including ChibuctoNet, use CSuite. In addition to the free-ware aspect of the technology, a number of communities have shown interest in the software because it will run on older computer models such as 486s and low end Pentium PCs, as well as the latest Pentium PCs. In addition it can run on a number of platforms. Once installed, CSuite can provide community members with email accounts, publishing ability and the capability to produce community content.<sup>44</sup>

The major challenge and problem that has emerged for VCRC is that it appears to have reached a stalemate. A tension has developed between VCRC and its sponsor organization ChibuctoNet. According to D. Murdock these problems can be attributed to the influx of new people on the Chibucto board. ChibuctoNet's success as a CAP resulted in a significant expansion that involved project development for VoINet and urban CAP. Once the projects were underway ChibuctoNet reverted back to simply providing service delivery to their dial-up customers.<sup>45</sup> This resulted in ChibuctoNet paying more attention to service delivery and monitoring, than to involving itself in finding solutions to community sustainability issues.

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<sup>44</sup> CSuite, [http://csuite.ns.ca/Html/tech\\_info.html](http://csuite.ns.ca/Html/tech_info.html)

<sup>45</sup> Interview with D. Murdock, February 2, 2001.



Because of these pressures and others, the relationship between VCRC and ChibuctoNet have become rather strained. At the time of the writing of this report these tensions and problems had not been successfully resolved. In part, this has resulted in the stalling of the VCRC pilot project because of an inability to re-submit the requested CLN pilot information.

### ***Bay of Fundy Community Learning Network***

The Bay of Fundy Community Learning Network evolved out of the Bay of Fundy Marine Resource Centre (MRC). Located in Cornwallis Park, Annapolis County, N.S., MRC is a not-for-profit organization that was established in 1997. The Centre came about through collaborative efforts between the Western Valley Development Authority and the Fundy Fixed Gear Council to help give the Digby and Annapolis region a more active role in the management of the region's coastal resources. MRC purchased the abandoned military base buildings which now house 24 offices, as well as a local research and testing laboratory. As a walk-in information and referral centre, services are provided for on-line access to information in marine topics; a training classroom; and geographic information system (GIS), and computer mapping technology (Coastal Marine Resource Mapping Project).<sup>46</sup>

MRC works with fisher's organizations, processors, aquiculture operators, marine eco-tourism operators, First Nations peoples, environmental groups, other researchers and government representatives. As a community civil institution MRC provides support for community capacity building by offering a number of services such as conflict resolution, information/referral, GIS consultation and organizational development support.

As previously noted MRC was already involved in community learning activities, which facilitated qualifying for a CLN project. The Bay of Fundy Community Learning Network (BFCLN) has received \$191,000 in funding from the Office of Learning Technologies.<sup>47</sup> BFCLN

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<sup>46</sup> Bay of Fundy Marine Resource Centre, March 2001, <http://www.bfmrc.ns.ca>

<sup>47</sup> Bay of Fundy Marine Resource Centre, 2001, p. 3, <http://www.bfmrc.ns.ca/projects.html>

is primarily involved in designing, piloting and evaluating a model for a multi-faceted bio-regional community-based learning centre, focused on networking, research, resource support and training.

Organizations are encouraged to network with members from port to port using ICT such as fax machines and e-mail using the 15 CAP sites in the Fundy Bay area. The encouragement of networking involves linking local organizations with those in other countries that also face geographically remote challenges. Learning opportunities and training is provided through workshops on: GIS; community-based management; organizational development and leadership skills; and professionalization. BFCLN intends to offer the mandatory courses that will be required of all fishers in Marine Emergency Disaster, by 2003. Currently a joint research proposal is underway between the Mi'kmaq Fish and Wildlife Commission and the Bay of Fundy Fisherman's Association concerning equitable lobster harvesting in St. Mary's Bay area. Collaborative research is also underway with the Bay of Fundy Fisheries Cooperative Ltd. regarding niche market research for value-added products, underutilized species and live and fresh fish products. BFCLN has also provided resource support on environmental monitoring in oil spill awareness and planning. Another plan is the Coastal Resources Mapping Project, an initiative that combines the GIS coastal resource maps with the local ecological knowledge of fish habitat levels with information from the Department of Fisheries and Oceans (DFO).<sup>48</sup> BFCLN is hopeful that it will be able to digitize this knowledge so that fishers will be able to participate with DFO in resource management under the New Oceans Act. Currently fishers are often frustrated accessing data from DFO because internal information and knowledge is not shared among government departments.<sup>49</sup>

The major challenges that BFCLN have experienced include the lack of availability of the current level of communication services, the downloading of the formerly federal public wharfs to the local community, and CLN long term sustainability. The lack of availability to the current

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<sup>48</sup> Ibid, p. 4.

<sup>49</sup> Interview with M. Kaye and A. Bull, February 2, 2001.

communication services such as high-speed Internet and broadband to rural areas are significant digital divide issues. Regardless of the number of CAP sites or the development of community learning networks, if rural/remote region do not have these services they will experience additional disadvantages that can be attributed to the lack of knowledge and access to information systems. The provincial government in conjunction with the major telecom service provider, MT&T, has designated the Annapolis and Digby area a 'smart community'. Recently MT&T has upgraded its system in the area with a digital network so that community organizations and individuals can now benefit from video-conferencing and high-speed Internet access.

The privatization of public service wharfs by DFO's Harbour Authority means that local communities and fishers' organizations are responsible for capital expenditures and maintenance. As the MRC manager explained:

... the fishermen are not only responsible for fishing, their boats, tagging and logs [journals], getting the catch to market they also have to work on the wharf.<sup>50</sup>

Concern for long term sustainability is also an important issue for BFCLN in terms of the additional research they are planning to conduct. One potential collaborative research project involves fishers, scientists, and researchers from Maine, New Brunswick and Nova Scotia using GIS and IT to assemble a knowledge base on ground fish spawning areas. Another is a potential pilot project on the development of aquiculture on dyke-land property.

### ***Community Access Program***

The Ministry responsible for CAP development and management in the province of Nova Scotia is the Technology and Science Secretariat.<sup>51</sup> Coming into force in December 1998 the

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<sup>50</sup> Interview with M. Kaye, February 2, 2001.

<sup>51</sup> Memorandum of Agreement Between Industry Canada and the Province of Nova Scotia, December 1, 1998.

MOA sets out the completion dates of rural CAP as March 31, 2001, and urban CAP April 30, 2003. Fifty percent or \$4 million dollars of financing has been provided by Industry Canada with the remaining 50 percent from the Nova Scotia government. Based on the Agreement the goal is to establish 239 rural and urban sites in 516 communities. As is the case with the other MOAs, standards have been put in place for hours of operation at 20-25 hours per week, and the provision of prime time hours of 6-8 hours between 6-10PM, or on weekends.<sup>52</sup> As of February of this year, 198 rural sites are open and 20 are closed. In addition 29 urban sites have been opened.<sup>53</sup> Forty five percent of the sites are located in public schools, 30 percent are in libraries and the other 25 percent are located in community centres.<sup>54</sup> All of the urban sites are located in the Halifax metro area, Bedford, Dartmouth and Sackville in the Mi'kmaq Centre, two Francophone centres, YMCA youth training centre, Dartmouth General Hospital Emergency, Salvation Army, and the Black Community Workplace. Primarily, the urban CAP sites have been located in the areas of the cities that have the greatest social, economic and cultural needs.<sup>55</sup>

Rural CAP is managed by 8 regional working groups and coordinators. It would appear that the province is moving towards what could be called community networks or "CAP plus". The following provides two CAP plus examples which have recently been designated "smart communities". The first is located in the Yarmouth/Shelbourne county region and is referred to as the 'Carleton CAP project'. This CAP plus site is located in a health centre and came about through computer science and medical professional involvement in conjunction with the provincial Department of Health<sup>56</sup>. The aim of Technology and Science Secretariat is that eventually all of the medical facilities in the province will provide public access to the Internet.

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<sup>52</sup> Ibid.

<sup>53</sup> Industry Canada's Rural and Urban CAP Sites, February 7, 2001, rural pp. 13-18, urban p. 2.

<sup>54</sup> Interview with R.. Provencher, Regional Coordinator Atlantic Region, Industry Canada, February 2, 2001.

<sup>55</sup> Interview with B. Hart, Manager of Community IT Development Community Access Program, Technology and Science Secretariat, February 2, 2001.

<sup>56</sup> Ibid.

A second 'smart community', the Western Valley Development Authority (WVDA) is located in the Digby and Annapolis region. WVDA covers 5,600 square kilometers and has 43,000 residents and includes a First Nations community, four Black communities and the largest Acadian community in the province. WVDA has evolved out of the 30 CAP sites that were located in the libraries and community centres in the area in 1995. With the recent benefits of high-speed Internet access many of the communities in this region are now electronically connected. Partners include Annapolis County, Atlantic Canada Opportunities Agency (ACOA), Districts of Clare and Digby, HRDC, Industry Canada, the N.S. Technology and Science Secretariate and the Department of Economic Development, as well as the towns of Annapolis Royal, Bridgetown, Digby and Middleton.<sup>57</sup>

WVDA provides a number of training courses that are aimed at overcoming technophobia. Other training courses address the economic and social needs of the region and are located in places where people feel comfortable using computers. The approach taken towards training or service offerings is one based on inclusiveness. There are 100 free standing terminals in public locations that provide a conduit to on-line banking, tourism information, e-mail, job creation and literacy needs. It is only recently that the region began to benefit from the smart community designation and a number of digital divide challenges still remain. As previously noted, until the spring of this year the region was not able to benefit from a high speed Internet connection. This means that video conferencing centres can now offer services in five locations on a fee-for-service basis. Broadband access services, however, are still not available. Although the region does have a community college in Digby, this 'smart community' is not able to benefit from the synergies that a post-secondary institution could offer.<sup>58</sup>

## ***Summary***

The large number of CAP sites in Nova Scotia and the early development of innovative

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<sup>57</sup> Western Valley Development Authority, <http://www.wvda.com>.

<sup>58</sup> Interview with J. Larkman, Director of Western Valley Development Association, February 28, 2001.

access models has only translated into three CLNs, with a couple in development stage. Of the three projects, the survivability of the Virtual Community Resource Centre is questionable. The major problem appears to be the lack of cooperation and frustration between the sponsor organization ChibuctoNet and VCRC. Consequently, what was a relatively simple request for more budget information before application approval by OLT has not occurred in over a year.

The Bay of Fundy Marine Resource Centre is a good example of a community driven CLN. Using GIS technology and drawing from more than 30 community organizations and associations, the network is working to meet the social needs of marine communities. Whether this will continue once funding for the pilot project ends is, however, a big question. Until the spring of 2001 this area of the province was not able to take advantage of modern information highway technology. This unequal situation puts rural and remote communities at a disadvantage when they are compared with the larger urban metro communities. When a rural community does have access to full IH technology and systems, invariably the OLN will be constantly catching up to the larger, usually urban, technologically superior centres. The exception to this in the province's implementation of a 'smart community'. Both the Bay of Fundy Marine Resource Centre and the Western Valley Development Corporation (including the Bridgetown CAP) were successful in obtaining smart community funding. With the awarding of only one smart community in each province, however, and the extreme competitive aspect of this program very few communities will be able to benefit from the information communication technologies, and systems.

# Prince Edward Island's Community Learning Network and Community Access Programs

The population of Prince Edward Island has grown from 136,000 people in 1996 to 139,000 as of December 2000.<sup>59</sup> Primarily the province's economy is driven by the agriculture and fishing industries. Both industries employ a significant number of the labour force. As of January 2001 the unemployment rate for the province at 11.8 per cent is almost double the national rate. Youth unemployment is currently at 16.3 per cent.<sup>60</sup>

## *Community Learning Networks*

The first CLN project moved into the development stage on March 15<sup>th</sup>, 2001. The sponsor organization La Société Saint Thomas D' Aquin (SSTDA) is located in Summerside. If successful, SSTDA is planning to implement a virtual cultural intra-network that would integrate the five Acadian regional groups that are dispersed throughout the province.

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<sup>59</sup> Statistics Canada, 2001 (<http://www.statcan.ca/english>).

<sup>60</sup> Statistics Canada, 2001. *Labour Force Information*, Catalogue no. 71-001-PPB, p. 15.

## *Community Access Programs*

**Table 4.1**

### **Prince Edward Island CAPs**

CAP	Level	Location	Government involvement
Health Information Resource Centre	Level I	Charlottetown	TechPEI
Family Resource Centre	Level I	Charlottetown	TechPEI
East Prince Youth Development Centre	Level I	Summerside	TechPEI
KenNet Inc.	Level II	Kensington	TechPEI

On March 31, 1999 a Memorandum of Agreement (MOA) was signed between Industry Canada and the Minister Responsible for Technology and Environment. According to the MOA the agreement terminates April 30, 2003. As in the case of the other provincial MOAs a joint federal/provincial management committee was established. A branch of the Department of Technology and Environment, Techpei<sup>61</sup> manages the access program. The MOA covers the establishment of 52 CAP sites in 303 communities. Of these, five CAPs were upgraded to what is

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<sup>61</sup> Interview with J. Alford, March 16, 2001.



considered a Level II site and the remaining sites were designated Level I.<sup>62</sup> According to Techpei the Level II CAPs “evolved out of the best of Level I sites, what separates Level II from a Level I cap is they applied, they put in proposals, they have to be self-sustaining. The first year, all Level II’s receive funding to assist in their salaries”.<sup>63</sup> Another difference between Level I and II sites is that a Level II CAP provide service delivery. Revenue generation from service delivery includes digital collections, a pilot active dossier, training programs geared at between generations (all age groups) and youth training (15-30) to help defray sustainability costs.<sup>64</sup> Under provincial management CAP only generates operating revenues through the Level II service deliveries. The CAPs are not permitted to compete with the private sector in the delivery of various services such as web page design. Techpei has hired a consultant to look at the feasibility of Level II CAPs developing community networks.

The CAPs do not charge membership fees nor do they charge for CAP email usage. Charges that are passed on to CAP users include the use of site paper, faxing and long distance telephone charges.<sup>65</sup> The program’s success is reflected in the 67 sites that have been put in place as of March 2001. The province and Industry Canada differ in the way they count CAP sites. The province does not differentiate between a single site with a lone terminal and a satellite location which may have two or three locations with two or three terminals. Industry Canada, on the other hand, may count the satellite location example given above as three separate sites. The different approach is based on the funding model the province uses for the CAP sites.<sup>66</sup> Twenty two of the sites are located in public schools and libraries. The remaining CAPs are located in community centres, resource centres, business centres and there is one Canada Post centre.<sup>67</sup>

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<sup>62</sup> Memorandum of Agreement on Community Access, Prince Edward Island, 1999.

<sup>63</sup> Interview with J. Alford, March 16, 2001.

<sup>64</sup> Interview with J. Alford and R. McDermid, March 16, 2001.

<sup>65</sup> Interview with J. Alford, March 16, 2001.

<sup>66</sup> Interview with J. Alford and R. McDermid, March 16, 2001.

<sup>67</sup> Ibid.

The province has used its Youth Employment Project to direct job creation for youth between the ages of 15 to 30. These young people work with local communities to provide hands-on training, presentations and demonstrations for individuals and groups at local CAP sites. Techpei makes the contractual arrangements to hire and train youth, supervise their performance and provide written reports to both Industry Canada and HRDC.

Financing for CAP is equally shared by Industry Canada and the province for up to \$800,000 each and may be provided in funds and/or services. A Statement of Work in Schedule A outlines the requirements for prospective CAPs. CAP proposals must meet the following criteria:

- by showing how the needs of the community will be met;
- by identifying community human resources such as management, user training, volunteers and youth;
- containing a three year budget and financial plan that includes details on capital operating costs and sources of revenue;
- by demonstrating how funds in the 2<sup>nd</sup> and 3<sup>rd</sup> years will be used to generate community funding to sustain operations beyond the 3 year funding period;
- by providing standards of operation are on average to be 20 to 25 hours per week, or a service level that is appropriate to community demand or population, with 8 hours reserved between 6 to 10PM, or on weekends.

Site visits were conducted at the following Level I CAPs: the Health Information Resource Centre (Charlottetown); the Family Resource Centre (Charlottetown); East Prince Youth Development Centre (Summerside). The Level II CAP KenNet Inc (Kensington) was also visited.

### ***Level I CAPs***

The Health Information Resource Centre provides public access to find information on health programs or services in the community in areas such as addiction, bereavement, complementary medicine domestic violence, families and parenting, seniors, sexuality and spiritual health. The centre has just recently been designated a Level I CAP. Six computers and

work stations are located in a separate room. This site can accommodate people of all ages as well as those with some physical disabilities by providing different types of mouse control. Staff provide on-site help for CAP users.

The Family Resource Centre, also Level I CAP, on the advice of its ISP has been operating with refurbished computers, two PC and one lap top. Currently the lap top is out of service as is the printer. The centre is located in a Victorian house that is undergoing repairs. A kitchen and play facilities are provided for CAP users and a separate room has been designated as the CAP site. In addition to inadequate computers the site does not have proper work stations, separate printer stands or adequate computer chairs.

The East Prince Youth Development Centre is a community resource centre that directly targets young people between the ages of 16-29. Partners include HRDC, Technology P.E.I., the local newspaper, the local radio station, the City of Summerside, the National Literacy Secretariate, the high school, the Rotary Club and the P.E.I. Institute of Adult and Community Education, among others.<sup>68</sup> The Centre provides effective job search tips, and offers career and employment planning that includes the development of employment goals, resume letter writing, team building and networking, communication and interview skills, the exploration of different careers as well as Internet research. Free Internet access is offered at the centre as well as on-site training. According to the project manager their major challenge is affordable technical support. In the past the site has used community college students for technical support. However, the level of knowledge these students have or lack and the complexity of the original problem can contribute to additional technical problems in some cases. As was pointed out technical support can be very costly for non-profit organizations such as EPYDC, particularly if the problem is a difficult virus that could take 25 or more hours to solve.<sup>69</sup>

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<sup>68</sup> <http://www.epydc.org>

<sup>69</sup> Interview with K. Trenholm, March 16, 2001.

## *Level II CAP Kensington*

KenNet Inc. serves the town of Kensington and a number of surrounding villages and hamlets such as Cavendish, French River, Malpeque Granville and Summerfield, among others. The CAP's mission is to promote the use of the Internet for community-based social, cultural, educational, economic and personal use. KenNet Inc's main objectives include identifying the community groups that are interested in developing Net projects, offering training and resources for community groups and finding new sources for KenNet projects.<sup>70</sup>

Currently the site is located in a very small space in the town's municipal office. Four computers are cramped together in this space. Work station areas do not have adequate computer chairs and PC towers are being used as book ends for the resource library. In addition there is no sign to direct people to the CAP site, either on the outside or in the building.

KenNet offers a 2 hour introductory training session at no cost. Training is provided by board members or by a volunteer. A club has been created so that public school students can use the centre to complete their school projects. A 'Between Generations' project encourages content development. Through this project youth are given an opportunity of using digital technology to incorporate local history and traditions in community content development. Through this collaborative effort participants cooperate to share stories of common interests that are then maintained for future generations on the KenNet web site.<sup>71</sup>

Revenues are generated in a number of ways including membership fees (\$10.00 yearly) and ad space (\$30.00 yearly). Summer computer camps are conducted at a cost of \$50.00 for a one week course on surfing the Internet, graphics, or web page design. Despite the attempt to generate operating revenues through service offerings and memberships, the site manager is very concerned about long term sustainable funding. What is worrisome is the possibility that the MOA may not

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<sup>70</sup> KenNet Inc. 2001. [http://www.kennet.pe.ca/high\\_end/aboutkennet.html](http://www.kennet.pe.ca/high_end/aboutkennet.html).

<sup>71</sup> See KenNet Inc. 2001. <http://collections.ic.gc.ca/chip/>.

be renewed after March 31<sup>st</sup>. Also, if funding arrangements only continue at a later date in May, June or July there will be problems in obtaining summer students for employment. KenNet considers the site to be an important centre for the community because it conducts work shop training for seniors and it provides individuals who are jobless and without telephone service, the ability to conduct employment searches.<sup>72</sup>

## ***Summary***

Overall, there are a number of challenges for the P.E.I CAPs. In addition to whether the sustainability issue is resolved, concern was also raised about the recent expiry of the MOA. The CAPs that are better able to handle their operating expenses are the ones that have paid facilitation in what are referred to as Learning and Opportunities Centres, community centres and libraries. Those that are located elsewhere often respond to funding cuts by reducing their hours of operation.<sup>73</sup>

Because the Agreement is tied to the province's youth employment program there is a strong possibility that some sites may not have enough workers and volunteers for the summer months. Volunteer burnout and student volunteers who do not show up at the CAP sites can cause other major problems. Another important issue is the physical location of CAP sites. When they are located in public libraries, service fees are prohibited. When a site is located in a public school, access after school hours may be problematic due to security and whether a custodian is present, or if the CAP site has a separate entrance and doors that can close the site from the rest of the school.

Based on site research Level I and II CAPs are in the process of evolving into community networks. Further CLN development in the province would likely occur if the CAPs and Techpei knew more about the CLN program.

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<sup>72</sup> Interview with A. Henn March 16, 2001.

<sup>73</sup> Interview with J. Alford March 16, 2001.

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