A Snapshot
State of the Nation Study:
K-12 Online Learning in Canada

NAC☀L

North American Council for Online Learning

Written by

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Acknowledgements

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Foreword

Online learning is a powerful innovation that expands education opportunities for all students. Online learning has tremendous benefits in areas where students are geographically dispersed and Canada has been a leader in establishing K-12 online learning opportunities for students.

This report provides important research on the programs of online learning in elementary and secondary schools across Canada and a framework for better understanding the trends.

As one of the founding board members for the North American Council for Online Learning noted, it is fascinating that virtual education in Canada pre-dates the first programs in the United States.

Since its inception in 2003, NACOL has partnered with leading researchers to track the growth of online learning programs throughout the United States. In 2006, NACOL published an international survey of online learning programs globally. NACOL seeks to expand the depth of our understanding and further examine the trends and growth of K-12 online programs in Canada.

This report aims to begin to address the need for more research in Canada. I also invite others interested in partnering with NACOL to support this work as we move forward studying online learning trends in Canada. We are seeking funding through limited sponsorship opportunities for this study annually.

NACOL's mission is to ensure all students have access to a world-class education and quality online learning opportunities that prepare them for a lifetime of success.

I want to thank the author, Michael Barbour, and his colleagues for their leadership in researching Canadian online learning programs and for their long hours, dedication and tirelessness in writing this report focused on Canada. I am grateful for their commitment to furthering our common mission for better serving all students in North America by expanding opportunities through high-quality online learning.

Susan D. Patrick

Susan Patrick, President/CEO
North American Council for Online Learning (NACOL)

Executive Summary

To date, most of what is known about K-12 online learning from the media and literature is focused upon experiences in the United States. However, virtual schooling first began in Canada in 1994-95. Over the past fourteen years, there has been little federal funding for the development and research of K-12 online learning in Canada. This has largely been due to the fact that education is a provincial jurisdiction and there is no federal department with this responsibility in Canada. Therefore, there have been no federal guidelines or standards for these programmes to meet through reporting or external evaluations. With limited government, foundation, and private support for education research, K-12 online learning programmes have not received financial support for research and evaluation. Moreover, there has been little activity in Canadian higher education towards research of K-12 online learning, compounded by the fact that there are fewer than five-dozen Canadian universities, which limits the focus and scope of K-12 education research. As such, K-12 online learning has continued to develop across Canada quietly, and with little dissemination outside of the country and between individual provinces.

This report is the first of many steps that researchers and the North American Council for Online Learning (NACOL) are taking to begin to address the lack of information about K-12 online learning in Canada. This report will address two main purposes in this report: an examination of online learning activity at the K-12 level and how it is governed in each province and territory. Thus we provide a brief overview of the national landscape of K-12 online learning, with a more detailed focus on three jurisdictions.

Across Canada, there are ten provinces and three territories. For online learning, there are eight provinces that have some form of province-wide distance education programme. Of these eight provinces, two have a single province-wide virtual school, three have limited province-wide programmes and some district-based initiatives, and three have limited province-wide programmes and extensive district-based and private school initiatives. In addition, there is one province where there are only a limited number of district-based K-12 distance education programmes and one province where distance education is almost non-existent at the K-12 level. Finally, all three territories make use of district-based programmes that are based on other provinces.

In terms of governance, the vast majority of provinces do not have policies that are specifically related to K-12 online learning. Instead, online learning programmes must struggle with meeting regulations designed for brick-and-mortar schools. The main exception to this is British Columbia, where the Government has created a specific regime to govern the operation of distance education in that province.

A Snapshot State of the Nation Study: K-12 Online Learning in Canada

1. Introduction

In the introduction of the 2006 international survey report published by NACOL and titled, "An International Perspective of K-12 Online Learning", the North American Council for Online Learning (NACOL) indicated that "research has been done on several virtual schools in North America; however, little information is available about current K-12 e-learning initiatives across the world" (Powell & Patrick, 2006). After examining literature on K-12 online learning to date, the vast majority of literature and research about K-12 online learning focuses upon the United States. This report is the first of many steps that researchers and NACOL are taking to begin to address the lack of information about K-12 online learning in Canada. This snapshot is the first annual study focused entirely on policies and programs for K-12 online learning in Canada.

1.1   Development of K-12 Online Learning

The first virtual school established in Canada was the Avon Maitland Distance Education Centre, organised by the Avon Maitland District School Board in Ontario in 1994-95 (Barker & Wendel, 2001) – although they did not offer any courses until 1997-98. The first virtual schools to offer courses were the Electronic Distance Education Network in Ontario and a school-based programme operated by Garden Valley Collegiate in Manitoba during the 1995-96 school year (Barker, Wendall & Richmond, 1999). There were also several school district consortia that offered K-12 online learning programmes in Alberta (Haughey & Fenwich, 1996), where from 1995 to 1999 there were 23 district-based online learning programmes in operation (Muirhead, 1999). The first references to K-12 online learning in the literature were based on these district initiatives in Alberta, and a district-based programme in Newfoundland and Labrador. Haughey and Fenwich (1996) first discussed administrative and policy issues surrounding the formation of school district consortia to provide web-based distance education in Alberta, while Stevens (1997a, 1997b) and Mulcahy (Stevens & Mulcahy, 1997) outlined a research project that began in 1996 using a school district intranet to provide tele-learning opportunities to rural, secondary school students in the province of Newfoundland and Labrador.

Over the next decade, Alberta continued developing public and private district and multi-district programmes; while the district initiatives in Newfoundland and Labrador expanded into the current provincial virtual school (see Barbour, 2005a). In a national survey of K-12 online learning in Canada, O'Haire, Froese-Germain and Lane- De Baie (2003) reported that Alberta continued to have the most students engaged in online learning, with British Columbia also having a significant number

of district-based and consortium programmes. In addition to Newfoundland and Labrador, New Brunswick also created a province-wide virtual school. This growth has even expanded beyond areas that are primarily focused upon addressing the concerns of rural education to include the Vancouver School Board and the Toronto District School Board, two of the largest school districts in Canada (with the latter being the largest in the country). At present, every Canadian province and territory has some form of online learning.

To date there have been a few evaluations that have focused upon individual provinces (e.g., Ballas & Belyh, 2000; Brown, Sheppard & Stevens, 2000; Haughey & Murihead, 1999) or multiple provinces (e.g., Barker & Wendall, 2001; Barker et al., 1999), and have usually focused only on specific issues, such as student achievement and performance or policies and practice. The Canadian Teachers Federation completed the first national survey of K-12 online learning in Canada. O'Haire, Froese-Germain and Lane-De Baie (2003) provided a six-page discussion of the "nature and extent of online education in Canada" (p. 5). However, the main focus of the report was an examination of the various issues arising from online education for educators.

In a second national survey, Haughey (2005) mainly provided the reasons why online learning was growing and ten themes based upon the literature about online learning at the K-12 level in Canada, with only a one to two paragraph discussion of the extent of online education in each of the provinces. Finally, in an unpublished document prepared for the Federal Department of Human Resources and Development, Smith (2003) provided a one page overview of the state of K-12 online learning (with a noticeable focus on Alberta and British Columbia). This report also discussed of some of the potential barriers to successful growth in this area and recommendations to overcome these barriers.

There have also been several research studies focusing upon various aspects of rural K-12 online learning in Newfoundland and Labrador and Alberta, but little research has been conducted outside of these two jurisdictions. Even the research being conducted by graduate students is sparse. A search of the Theses Canada Portal in early 2008 using the terms "virtual and school," "cyber and school," "cyberschool," and "online and school" yielded only 23 thesis and dissertations. A similar search of the U.S.-based ProQuest Dissertation and Theses database using the same combinations of search terms yielded 234 possible documents. A comprehensive resource for K-12 online learning literature in Canada can be found at http://virtualschool.wikispaces.com/bibliography.

1.2   Methodology

In preparing this report, the authors were interested in addressing the following questions:

1. How is online learning at the K-12 level governed in each province and territory?
2. What online learning activity is occurring at the K-12 level in each province and territory?

The authors have relied primarily upon the published literature available and our interaction with individuals responsible for K-12 online learning throughout the individual provinces and territories to provide this initial snapshot.

The authors selected three provinces for a more in-depth analysis. These provinces were selected based upon the convenience of information, access to appropriate people, and/or prior experience. Complete drafts of each of these profiles were shared with government officials responsible for K-12 online learning in each of these three provinces for their feedback prior to publication.

1.3   Definitions

For those familiar with K-12 online learning in the United States, most of the terms utilized are consistent with terms used to describe K-12 online learning in Canada. However, there are some differences. Often in the United States, online charter schools are referred to as cyber schools. Charter schools do not exist in most Canadian provinces; as such, the terms virtual school and cyber school are used interchangeably. In Canada, there is no separation of church and state. As such, several provinces have both a government-funded public school system and a government-funded Catholic school system.

Two terms that may be unfamiliar to a non-Canadian audience include:

Anglophone – English-speaking person

Francophone – French-speaking person

Finally, the authors of this report make use of the definitions provided by the Virtual School Glossary project (see http://virtualschool.wikispaces.com/glossary) in most other areas.

1.4   How to Read This Document

The goal of this first "State of the Nation Study: K-12 Online Learning in Canada" is to provide an overview of the state of K-12 online learning in Canada. However, for those not familiar with the Canadian system a brief discussion of how K-12 education is governed and structured across the country is necessary. The following section provides this general overview.

Section three of this report is designed to provide the reader with a brief description of the online learning policies and activities in each of the ten provinces and three territories. It should be noted, however, this description is simply a snapshot in time. As the field of K-12 online learning is rapidly changing, the currency of the information contained in this report is limited to the realities of September 2008.

Section four provides the reader with a more in-depth analysis of K-12 online learning in three provinces. The authors hope that future versions of this report will be able to provide this more detailed analysis for all ten provinces and three territories, however, this current report was limited to a snapshot by both time and a need for external funding and sponsorships. Please see the call for sponsorships at the end of the report for opportunities to provide future support for this research study.

2. Education in Canada

Canada ranks highly among the nations of the world in educational spending per capita. However, Canada does not have a national policy for or governing body with jurisdiction over education. Canada is a confederation of ten provinces and three territories, and responsibility for education falls within the provincial and territorial level. As such, each province and territory has a Ministry of Education that assumes the responsibility for the elementary, secondary and post- secondary education. Each ministry develops the policies, standards, and curriculum to support student learning within their province or territory.

Similarities in the educational structure exist between the thirteen regions: The school year, for most provinces, generally operates from September thru June. Most provinces have a system that runs from kindergarten to grade twelve (although, up until 2002-03, the Province of Ontario also had a grade thirteen or Ontario Academic Credit (OAC)). In addition, while the province of Quebec only has formal schooling from kindergarten to grade eleven, upon the completion of grade eleven those students who are continuing with their education attend *Collège d'enseignement général et professionnel* or CEGEP. CEGEP, which translates to "College of General and Vocational Education," is two years of general or three years of technical education between high school and college or university.

Education System by Province

Province / Territory	Kindergarten	Elementary / Primary	Junior High / Middle School / Intermediate	Senior High / Secondary
Newfoundland and Labrador	1 year	Primary (1-3) & Elementary (4-6)	7-9	10-12
Nova Scotia	1 year	1-6	7-9	10-12
Prince Edward Island		1-6	7-9	10-12
New Brunswick	1 year	1-6	7-9	10-12
Quebec	2 years	1-6		7-11*
Ontario	2 years	1-8		9-12

Education System by Province

Province / Territory	Kindergarten	Elementary / Primary	Junior High / Middle School / Intermediate	Senior High / Secondary
Manitoba	2 years	1-8		9-12
Saskatchewan	1 year	1-5	6-9	10-12
Alberta	1 year	1-6	7-9	10-12
British Columbia	1 year	1-7		8-12
Yukon Territory	1 year	1-6	7-9	10-12
Northwest Territories	1 year	1-6	7-9	10-12
Nunavut Territory	1 year	1-6	7-9	10-12

* Then students attend two to three years of CEGEP.

Students in most regions attend kindergarten on a voluntary basis, with formal education beginning at grade one when the students are 5-6 years of age. Most provincial laws mandate that students attend school until the age of 15 or 16.

Most provinces support a public education system where funding is provided through provincial taxes; and every school in the province or territory receives the same basic per-student funding based upon enrollment– usually through their individual school districts – with additional funding made available for special programmes. The student funding is primarily used to pay for consumables within the school, and most provinces and territories have separate funding for the maintenance of the school buildings. All provinces and territories directly pay faculty and support staff salaries based upon collective agreements signed between the government and the professional associations or unions. Several provinces also support a separate public education systems for religious or language preferences (and this is based historically upon the nature of systems publicly supported at the time of Confederation). While the structural similarities exist, the individual Ministries develop their curriculum to respect the unique geography, history and culture of their regions.
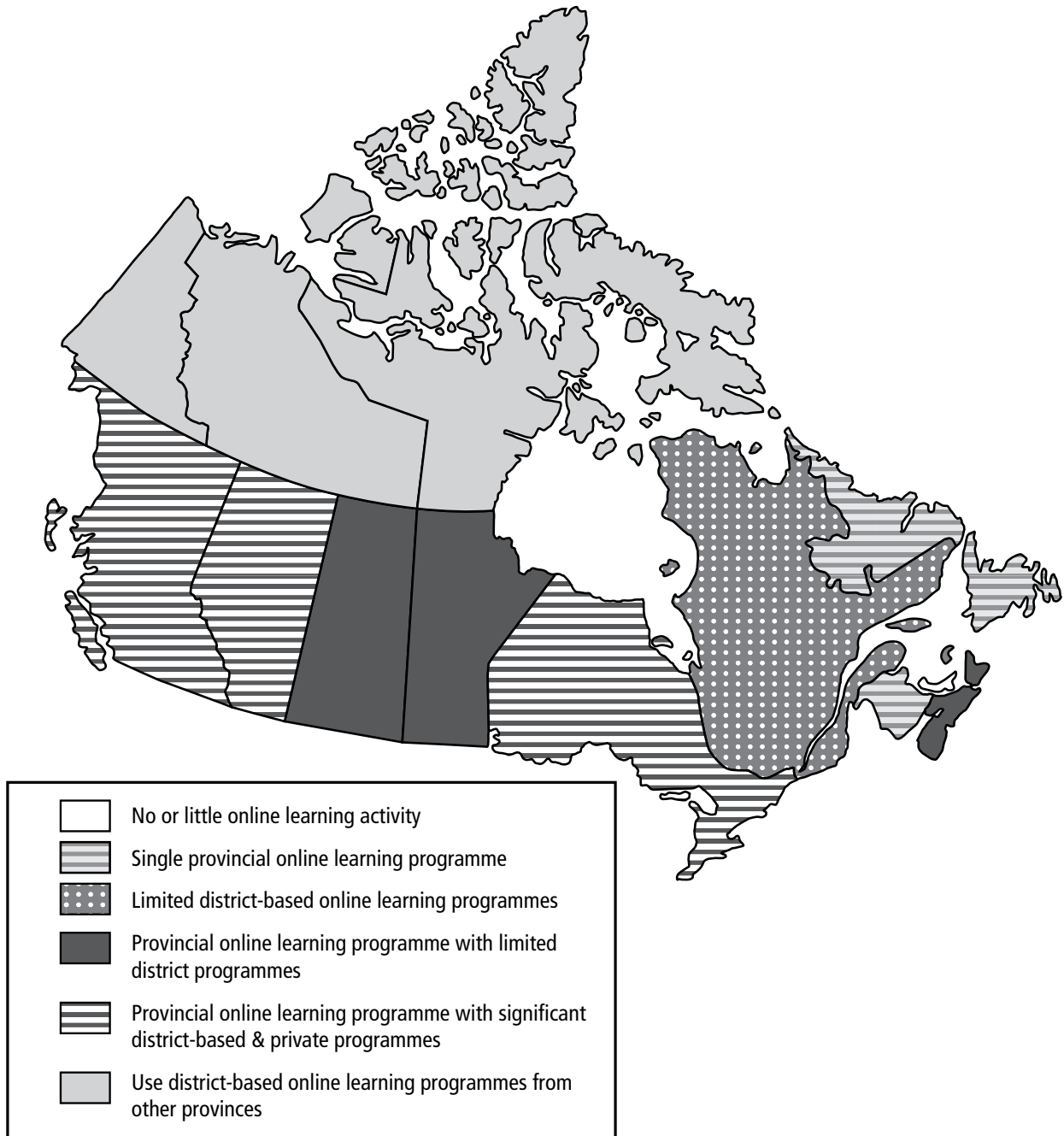
In 1967, a Council of Ministers of Education was formed. This council provided a forum for the provincial and territorial ministries to discuss matters of common interest. The council represents the voice of the provinces when in discussion with the federal government. While the responsibility of education is a provincial/ territorial matter, federal government policies influence many aspect of the education system such as official languages, post-secondary education funding, human resource development, and, more recently, information and communications technology.

While Canada has no national or federal department of education, the federal government has been able to maintain a role in provincial and territorial education systems. One way this presence in education is felt is through the funding of federal programmes that schools can take advantage of, such as the Department of Industry's SchoolNet (see http://web.archive.org/web/20070620112548/ http://www.schoolnet.ca/ – note that SchoolNet ceased to exist on 20 June 2007 and this link is via the Internet archive) or Community Access Program (see http://cap.ic.gc.ca/index.htm) programmes. Typically these programmes have focused upon items of national interest or importance, for example, providing Internet access to schools or the general public (particularly in rural and remote areas), increasing students' use of technology in schools, laying the infrastructure for a national high speed network, etc.. These programmes have also usually been undertaken in partnership with the various provincial and territorial Ministries of Education.

For more information on the structure of education system in Canada and the role the federal government plays through these national programmes, see Barbour (2005b).

3. Provincial Overviews

In each of these provincial and territorial profiles, we have attempted to provide a short description of the province or territory and its education system, describe how K-12 online learning is governed and managed, and then speak to the extent of online learning activity.

Legend:
- No or little online learning activity
- Single provincial online learning programme
- Limited district-based online learning programmes
- Provincial online learning programme with limited district programmes
- Provincial online learning programme with significant district-based & private programmes
- Use district-based online learning programmes from other provinces

3.1   Newfoundland and Labrador

The province of Newfoundland and Labrador is the most eastern province in Canada with a population of approximately 500,000. Two distinct land masses covering approximately 405,000 km^2 comprise the province: the island of Newfoundland and the mainland region of Labrador. Since 1971, the number schools in Newfoundland and Labrador have decreased from 781 to 294. The current student population is just over 70,000, which represents a 54% decline since 1971 (with an annual 3% decrease in enrollment predicted for the near future).

Several district-based K-12 online learning programmes grew from an existing province-wide audiographics distance education programme that had been in place. In 1999, the provincial government appointed a Ministerial Panel to examine these programmes, which led to the creation of a single province-wide virtual school, the Centre for Distance Learning and Innovation (CDLI) in 2000. The Ministry of Education administers this province-wide virtual school. At present, the government has not instituted any regulations that are specific to online learning.

The CDLI currently offers 35 courses from the secondary curriculum. The CDLI also has course materials for several Advanced Placement courses, although these are not directly offered by the CDLI. They have created resources that can be used by any student or teacher in the province as review items. Finally, they have begun to explore a team-teaching approach for French as a Second Language courses at the junior high or intermediate level (although this is still in the very early stages and has yet to even be piloted).

3.2   Nova Scotia

Nova Scotia is located in the Atlantic Canadian region. It has a population of almost a million living in an area of approximately 55,000 km^2. In the 2007 – 2008 school year, there were approximately 140,000 students attending approximately 400 schools.

K-12 online learning began in Nova Scotia in 2003 when the Ministry of Education sponsored a virtual school pilot programme in conjunction with the two local school boards. This pilot programme has evolved into the Nova Scotia Virtual School (NSVS), which continues to be a partnership between the provincial Ministry of Education and the seven provincial school boards. The NSVS offers approximately 30 courses that are designed and taught by teachers in each of the seven school boards, but hosted on a provincial centralized course management system. The province has also created a grade twelve French as a Second Language course which is included in these offerings. Local school board contacts are responsible for registering students and school boards are given an allocation of funded seats based on the number of eligible small high schools.

Nova Scotia also continues to offer grade seven through twelve courses through correspondence to students living in and outside of the province. There is no information on the government website or in their public publications to indicate their level of participation in these distance education programmes.

3.3 Prince Edward Island

Prince Edward Island, an island province located just north of Nova Scotia and New Brunswick, is the smallest province in Canada. It has a population of less than 140,000 living in an area of less than 6,000 km². During the 2007-08 school year there were approximately 20,000 students attending approximately 65 schools.

As a geographically small province, Prince Edward Island does not have the history with traditional forms of distance education found in many provinces. In the past, students could enroll in correspondence courses offered through the New Brunswick Community College system to gain secondary school credit with certain restrictions. In 2001, Ministerial Directive No. MD 2001-05 established additional guidelines for the use of distance education within the K-12 system and stated "that programme delivery by distance education/on-line learning is a new initiative for the Prince Edward Island public school system." These provisions were further modified in August 2008 by Ministerial Directive No. MD 2008-05.

According to the Ministry of Education's website, the only registered private training school currently operating a distance education programme in the province is National HomeEd, which offers business and technology courses.

3.4 New Brunswick

The province of New Brunswick is the only bilingual province in Canada. Located in the Atlantic Canada region, the province has approximately 750,000 people and an area of approximately 73,000 km². The K-12 system is divided into an Anglophone school system and a Francophone school system. The two systems account for approximately 110,000 students enrolled in 120 different schools.

Online learning at the K-12 level is directly managed by the provincial Ministry of Education through its Education Services Division. Any student in the province can choose to access courses that, because of scheduling conflicts, illness or limited course availability in their own schools, might not otherwise be available. The brick-and-mortar schools are responsible for registering their students into a provincial database that provides them access to their online courses. While the Ministry of Education employs the online teacher, schools are expected to support their online students — including providing a local facilitator at each participating school with specific responsibilities for the online students.

The K-12 online learning programme in New Brunswick began during the 1998-99 school year when a single course, Information Technology 110, was offer to students throughout the province. At present, the province has over 40 high school courses available to students, including all required grade 11 and 12 courses along with other optional and advanced level courses. In addition to online students, brick-and-mortar teachers can also register complete classes into the provincial course management system and use the features of the course management system and the static course content in their face-to-face courses. In recent years, the Ministry of Education has averaged 2200 to 2500 students enrolled in their courses per semester, with approximately 800 to 1000 of those students have been enrolled in face-to-face courses where their teachers were using the online material to teach their course (which has been the source of most of the recent growth in this programme).

3.5   Quebec

Quebec is the only French-speaking province in Canada. One of the two central Canadian provinces, Quebec has almost 8,000,000 people living in an area of approximately 1,500,000 km². Quebec is also the only province that does not have a traditional K-12 school system. In Quebec, elementary school is from K-6 and is followed by five years of secondary school (i.e., grades 7-11). After secondary school, students typically attend a two or three year *Collège d'enseignement général et professionnel* or CEGEP to receive a Diploma of College Studies, which is required for university admission. There are approximately 1,300,000 students in the elementary and secondary system, and another 200,000 students attending CEGEPs. Like New Brunswick, Quebec also has both a Francophone school system and an Anglophone school system.

Historically, the provincial Ministry of Education has had responsibility for distance education in Quebec. In 1994-95 the province ended its direct involvement in distance education and the school boards became responsible for this function. Later in 1995, the school boards supported the creation of the *Société de formation à distance des commissions scolaires du Québec* (SOFAD), a semi-independent agency to develop and produce distance-learning materials (along with other duties). Currently, SOFAD has created distance materials for more than 200 courses. Although these courses are offered in a variety of formats, online learning is only a small percentage of SOFAD's offerings. SOFAD does not have responsibility for the administration or delivery of distance education, only the creation of materials.

Individual school boards use the materials developed by SOFAD in their own distance education programmes. Currently, there are thirteen French-language school boards and three English-language school boards that have approximately 34,000 students enrolled in some form of distance education.

3.6   Ontario

Ontario, located in central Canada, is the most populated of all the Canadian provinces. There are approximately 13,000,000 people living in an area of approximately 1,000,000 km². Ontario has a government-funded public school system and a government-funded Catholic school system in each of Canada's official languages (i.e., an English public and a French public system, etc.). There are over 2,100,000 students attending over 4,900 schools throughout the province.

K-12 online learning in the province is managed through e-Learning Ontario. Through this government agency, the province is able to facilitate the online learning offerings of participating school districts. In this model, these districts have the ability to use the provincial learning management system, along with other resources provided by e-Learning Ontario. However, participating districts maintain the responsibility for the administration and instruction of their own students using the e-Learning Ontario resources.

Of all the Canadian provinces, Ontario has the greatest variety of K-12 online learning activity. The Ministry of Education offers courses directly through the Independent Learning Centre. The Ontario e-Learning Consortium offers online courses to schools in 18 districts operating under a co-operative model. There are additional school districts that have created their own online learning programmes separate from the Consortium. There are also several private schools in operation, including one that

focuses upon an aboriginal population of students. Due to the variety of organisations offering K-12 online learning options, there is currently no single source of information to indicate their level of participation in these programmes.

3.7   Manitoba

Manitoba is located in the Western Canadian region of the country. It has a population of 1,200,000 living in an area of approximately 650,000 km². There are approximately 197,000 students attending approximately 775 schools.

In Manitoba, the Ministry of Education, Citizenship and Youth is responsible for distance education and has three different methods of delivery available: independent study, teacher-mediated, or web-based courses. The independent study option operates using a correspondence model and offers approximately 80 courses from the grade seven through twelve curriculums. The teacher-mediated option provides instruction twice a school cycle for 40 minutes per class by audio teleconference and has approximately 30 courses from the grade nine through twelve curriculums. Both the independent study and teacher-mediated options are offered directly by the Ministry.

However, the individual school divisions offer the web-based course option. Under this third model, an individual school division hires its own teacher who uses the web-based course(s) designed by the Ministry to offer an online learning option. Students register directly with their school division. According to the Ministry website, all 37 school divisions in the province currently participate in the web-based course option. There is no information on the government website or in their public publications to indicate their level of participation in these distance education programmes.

3.8   Saskatchewan

Located in Western Canada, Saskatchewan has a population of approximately 1,000,000 people with an area of approximately 650,000 km². Similar to Ontario, Saskatchewan also has a government-funded public school system and a government-funded Catholic school system. There are over 160,000 students attending 750 different schools.

Saskatchewan has both a provincial online learning programme and several district-based programmes. At the provincial level, there are Technology Supported Learning courses available to students in grades ten through twelve in a variety of subject areas. However, this programme is being phased out and will cease to exist by the summer of 2009. In addition, the Ministry of Education also offers a smaller selection of grade nine through twelve courses through an Interactive Televised Instruction programme.

Recently, a number of school boards have begun their own online learning programmes. While the enrollment in these district-based programmes was initially limited to students within the school district, in the past year they have become open to students from anywhere in the Province of Saskatchewan. To help facilitate this expansion, these programmes have begun the creation of a Saskatchewan Distance Learning Course Repository, which is a clearinghouse for all of the

distance education courses offered in the province (note that this includes correspondence, online asynchronous and synchronous, and interactive television), although this body is quite new and its participants' level of involvement is still evolving. There is no information on the government website or in their public publications to indicate their level of participation in these distance education programmes.

3.9   Alberta

Alberta is located in the western region of Canada. It has a population of 3,500,000 living in an area of approximately 660,000 km^2. Alberta has a student population of approximately 600,000 that attend around 2,100 schools. A majority of the students are registered through the public education system. However, the province also has a publicly funded Catholic system and French language system, along with private schools and charter schools.

The Ministry of Education governs distance learning in Alberta and provides a province-wide option, although there are a substantial number of school districts that operate their own programmes. However, the Ministry does not provide specific regulations for online learning. In fact, in their *Guide to Education* document they specifically advise schools to consider "how student attendance is to be defined, the role of parents in instruction, assessment and supervision of student work, staffing levels, time frames for student access to the instructional expertise of teachers, student evaluation practices, requirements for programme access by students living outside Alberta, programme decisions; e.g., self-paced or teacher controlled, how to deliver all outcomes of Alberta programmes of study, provision for writing achievement tests and diploma examinations, programme and teacher evaluation, [and] how to provide alternative forms of programme delivery for non-resident students who are experiencing difficulty in the online environment" (Government of Alberta, 2008, p. 67).

The Ministry operates the Alberta Distance Learning Centre (ADLC), which offers elementary and secondary level courses to students across the province in a variety of delivery formats. The ADLC also operates the Vista Virtual School, which is a provincial online learning programme. In addition to these provincial initiatives, more than a dozen school districts still maintain their own district-based virtual schools. Finally, in 1999, the Sunchild First Nation created the Sunchild E-Learning Community to specifically address the lack of educational opportunity for aboriginal students by offering courses that ranged from grades seven through twelve as well as also adult education courses.

3.10   British Columbia

British Columbia is the most western province in Canada with an approximate population of 4,400,000 living in an area of approximately 945,000 km^2. The province has a student population of approximately 650,000, attending over 2,000 schools. The education system in British Columbia includes publicly funded schools, along with independent (i.e., private) and alternative schools, with approximately 10% of the student population enrolled in independent or alternative schools programmes.

The Ministry of Education in British Columbia is the only one in Canada that provides for policies and direct regulation of the distance learning opportunities in their province (which is called distributed

learning in British Columbia). Like most of the western provinces, the Ministry provides a province-wide online learning opportunity through the Open School for school districts that wish to use it. However, the vast majority of distance education is offered through district-based programmes. To account for the multiple methods of course delivery, districts are only allowed to operate a distributed learning programme after signing a formal contract with the government. This contract, along with the Distributed Learning Branch of the Ministry, guides districts to ensure that the learning opportunities they provide meet provincial standards.

At present, approximately three quarters of the public school districts operate distributed learning programmes. The enrollment in these programmes has grown exponentially in recent years with approximately 17,000 students enrolled in one or more courses during the 2005-06 school year and approximately 33,000 students in 2006-07. There were approximately 49,000 individual students enrolled during the 2007-08 school year, representing nearly 16 ,000 FTEs. In addition to the public option, several independent or private schools also offer distributed learning programmes.

3.11 Yukon Territory

The Yukon Territory is one of three Canadian territories that have limited self-government responsibilities (i.e., they have a territorial government structured in a similar fashion to a provincial government, but the federal government maintains certain powers over decisions taken by the territorial government). Like the other three territories, the Yukon is located completely north of the 60th parallel Latitude. The Yukon has a population of almost 32,000 and an area of over 482,000 km². There are fewer than 5,000 students attending 28 schools, three quarters of who attend one of the Whitehorse-area schools (i.e., the territorial capital).

The Yukon does not offer any distance education itself. However, in 2003-04 the territorial Ministry of Education reached an agreement with the Province of British Columbia. Under this agreement, any grade four to twelve student enrolled in a school in the Yukon is allowed to register for a distributed learning courses offered by one of the British Columbia programmes. The distributed learning programme in British Columbia receives funding for each student enrollment directly from the Yukon territorial government. This process is managed for the Yukon by the LearnNowBC organisation.

According to the territorial government's most recent annual, during the 2006-07 there were 141 students registered in 51 different courses. Like all distributed learning programmes in British Columbia, the delivery model of these courses ranged from those offered online, through a computer-enhanced model, or via paper-based correspondence.

3.12 Northwest Territories

The Northwest Territories has a territorial government with the same limitations as the two other territories. However, unlike the Yukon Territory, there are no political parties in this government and decisions are made using a consensus system (i.e., a model consistent with the aboriginal traditions of the people living in the territory). The population is approximately 42,000 people living in an area of almost 1,350,000 km². There are over 10,000 students attending 50 different schools. Schools in the Northwest Territories utilize the same curriculum as the Province of Alberta.

The Ministry of Education, Culture and Employment in the Northwest Territories has an agreement with the Alberta Distance Learning Centre for the provision of distance education services for K-12, when required. There is no information on the government website or in their public publications to indicate their level of participation in this programme.

3.13 Nunavut Territory

The Nunavut Territory is governed in the same manner at the Northwest Territories (including the use of a consensus system of governance). The territory has almost 28,000 people living in 28 communities in an area of 2,000,000 km^2. Schools in the Nunavut Territories utilize the same curriculum as the Province of Alberta.

Like the Northwest Territories, the government of Nunavut has an agreement with the Alberta Distance Learning Centre for the provision of distance education services for K-12, when required. There is no information on the government website or in their public publications to indicate their level of participation in this programme.

4. Case Studies

This section is designed to provide a more in-depth description of K-12 online learning in three specific provinces: Newfoundland and Labrador, Ontario, and British Columbia. This more developed description is broken down into three distinction sub-sections.

History of Distance Education

This sub-section is designed to provide a background to how the province arrived at its current state of distance education. We use the term distance education here intentionally, because much of the development towards online learning at the K-12 level came from earlier forms of distance education. Moreover, as was described in the previous section, many of the entities currently offering distance education in Canada utilized multiple forms of delivery, with online learning being only one of those methods of delivery – and often this is not the most common method utilized.

How K-12 Online Learning is Governed

As was discussed in the previous section, the Ministry of Education is responsible for K-12 online learning in each of the provinces. However, as it was also described in that section, most of the provinces do not have specific policies that govern K-12 online learning or distance education. As will be illustrated in the following pages, in some provinces, the K-12 online learning entities attempt to work within the existing system intended for brick-and-mortar education. This should be contrasted with the example of British Columbia, where the Ministry has taken a lead role in establishing policies that specifically apply to the distance education entities in that province.

K-12 Online Learning Activity

The final sub-section is designed to provide a more detailed discussion of the types of K-12 online learning programmes that are available in these three provinces and the scope of those programmes. Unfortunately, because of the variety of regulations governing online learning in each of the provinces, specific numbers of students involved in distance education and online learning, and even the exact number of programmes offering these opportunities, are difficult to obtain.

4.1   Newfoundland and Labrador

Geographically speaking, Newfoundland and Labrador is slightly bigger than the State of California, with the Labrador, or mainland portion, representing three quarters of that area. The provincial population is approximately 500,000, with just over 30,000 of those living in the larger Labrador region. Approximately 60% of the population lives within a one-hour drive of the capital, St. John's. In addition to a small population that is spread out over a vast geography, Newfoundland also has a high number of communities compared to its Atlantic Canadian neighbors, three quarters of which have less than 1,000 people. As such, the number of schools in the province has decreased from 593 in 1986 to 432 in 1996 to 294 in 2006, largely due to the amalgamation of small schools in the rural portions of the province (government of Newfoundland, 1986, 1996, 2006). Approximately two-thirds of the remaining schools are located in rural areas, and almost half of these rural schools

are designated as necessarily existent (i.e., a term used to describe a school that cannot be closed because it is located so far from another school that it makes bussing the students not feasible due to distance).

History of Distance Education

In 1988, the province implemented a programme of distance education for rural high school students using the Telemedicine and Educational Technology Resources Agency (Tele-medicine/ TETRA) system. This Tele-medicine/TETRA distance education programme utilized an audio-graphics system (sometimes referred to as a telematics system) using bridging technology to provide conference calling facilities that were accompanied by a telegraphic device for reproducing handwriting by converting the manually controlled movements of a pen into signals that would appear on all of the computer screens linked to the audio-graphics network.

The main purpose was to provide students in small schools with access to secondary level courses that were important for post-secondary admission but difficult to offer in rural schools due to low levels of student enrollment. In its first year, one course was offered (i.e., Advanced Math 1201), and it had an enrollment of 36 students from 13 rural schools. During the life of this programme, additional courses in mathematics, chemistry, physics and French as a Second Language were added. By 1999-2000, there were 11 different courses that had 898 course enrollments from 703 individual students attending 77 different rural schools (Brown, Sheppard & Stevens, 2000).

In the mid- and late-1990s, a number of web-based distance education programmes began to develop within the province. For example, in 1996 four provincial governments (including Newfoundland and Labrador) began the East–West Project to offer web-based information technology courses for adult learners. Later, Memorial University of Newfoundland (MUN) began a partnership with the Vista School District for the creation of a district-based Intranet to offer Advanced Placement mathematics and science courses. The Vista School District Digital Intranet: The Delivery of Advanced Placement Courses to Young Adult Learners in Rural Communities (VDI) officially began in 1998, providing a model for other district-based online learning programmes to develop.

Based upon these projects, authoring standards and templates were developed. This was important because in 1999, the government appointed a ministerial panel for the purposes of examining the delivery of education in the province. This included "examining the current educational delivery model and consider alternative approaches" (Sparkes & Williams, 2000). From the recommendations of this report, a province-wide virtual school – the Centre for Distance Learning and Innovation (CDLI – see http://www.cdli.ca/) – was created based upon the web-based model that had been evolving throughout the province (for a more detailed history of the development of distance education in Newfoundland and Labrador, see Barbour, 2005a).

How K-12 Online Learning is Governed

Typical of the distance education programmes in many provinces, the CDLI is not considered a separate school or a separate entity. It operates as a component of the Planning and Educational Programs Branch of the Ministry of Education. Due to the fact that it is not a separate entity, the CDLI does not directly enroll students or hire teachers – these responsibilities fall to the individual schools and school districts throughout the province. As such, the policies laid out in the provincial

Education Act and other subsequent directives by the Ministry of Education that are applicable to brick-and-mortar schools are also applicable to the online learning students enrolled in those schools.

Students are registered in their individual brick-and-mortar schools. The schools are responsible for registering their students in up to four CDLI courses, and special permission is required for students who are interested in registering for more than four classes (as most students take seven or eight courses each year, so more than four online courses represents more than 50% of their total course load). The schools, through their school districts, continue to receive the full funding allocated for the student – regardless of their level of participation in the CDLI's online learning. Once a student is registered with the CDLI they are considered an enrollment and are counted in all official statistics. This is significant, as many schools complete their course registrations in May or June for the coming school year that begins in September. This means that a school could register a student for a CDLI course in May, over the summer the student may change their mind, and on the first day of the new school year change their schedule to remove the CDLI course. In this instance, that student would be counted in the CDLI's attrition statistics even though they never actually started any CDLI course and the decision to drop the course was made before the school year even began.

The provincial government directly funds the CDLI. The administrators of the CDLI are hired by and are employees of the Ministry of Education, and they are primarily based either in the Ministry or in the Faculty of Education at MUN (as the university is one of the partners in the CDLI initiative). There are some administrators based at remote sites throughout the province, although this is limited to one or two individuals.

The CDLI does not directly hire faculty. The government provides the CDLI with an allocation of teaching units. The CDLI seconds teachers from school districts throughout the province (i.e., the process of secondment means that the teacher is still an employee of the school district but is on loan to the CDLI, and depending on the number of teaching units allocated to the school district they are usually able to hire a replacement for that teacher's in-school teaching duties). At present, the CDLI has approximately 30 teachers for their online course offerings. Most of these teachers remain in the schools they were teaching in prior to their secondment, although some are based in the CDLI offices at MUN. This means that the CDLI has a direct presence in schools and school districts throughout the province through these teachers – who are also often called upon to act in the unofficial role as ambassador for the CDLI in these rural and remote locations.

Finally, the CDLI also has an official presence in each of its participating schools. The CDLI provides each of its schools with up to seven computers, headsets, combination printer/scanner/fax machine, a video conferencing system, and any other equipment necessary for their students to take advantage of their online learning opportunities. The primary responsibility for the maintenance of this equipment also falls upon the CDLI (although often many minor issues are handled by personnel at the school or school district level). Each school is also responsible for appointing a mediating teacher (m-teacher) or mediating team (m-team). The m-teacher or m-team provides supervision and support, although not academic support, to the students enrolled in CDLI courses. This includes proctoring tests and exams, monitoring student attendance and behavior, and providing general support in gaining the independent learning and self-motivation skills that may be needed to succeed in the CDLI environment. At many schools, these responsibilities fall upon a group who might include a school administrator, technology teacher, secretary, custodian, and/or a student enrolled in the CDLI (who is often given the title of e-tutor).

K-12 Online Learning Activity

At present, the only K-12 online learning activity in the province is that of the CDLI. When it began in 2001-02, it offered 10 courses as a field test to approximately 200 students from 76 schools. By 2004-05 this had grow to approximately 1,500 student enrollments in thirty-five courses in 95 different schools (government of Newfoundland and Labrador, 2004). There were 1688 enrollments during the 2005-06 school year and 1484 enrollments during the 2007-08 school year – both representing approximately 900 students in over 100 schools (M. Barry, personal communication, 12 May 2008).

The CDLI offers a combination of synchronous and asynchronous instruction in all of its courses. Anywhere from 20% to 70% of the students' scheduled time (which is ten 1-hour periods over a 14 day cycle) is allotted for synchronous instruction using a virtual classroom. The remaining scheduled time is allotted for asynchronous instruction using content housed in a course management system. The course content is divided up into lessons designed as asynchronous instruction that can be completed in usually one to three hours of student time. Teachers assign these lessons, along with other student work, during the scheduled asynchronous time to supplement the synchronous instruction. The strong reliance on synchronous instruction makes the CDLI somewhat unusual in the Canadian K-12 online learning landscape, although not entirely unique.

4.2   Ontario

Like most Canadian provinces, Ontario has a densely populated southern portion of the province and a sparsely populated northern portion. However, in Ontario's case, the densely populated south is extreme, given that 94% or 11.75 million of Ontario's total population lives in southern Ontario. This means that only roughly 800,000 people accounts for the remaining approximately 80% of the geographical area of the province. Even more interesting is that much of the K-12 online learning activity in the province is focused upon the southern portion of the province, and not the sparsely populated northern regions.

History of Distance Education

The Avon Maitland District School Board in Ontario established the first K-12 online learning programme in Canada in 1994-95. However, the Avon Maitland Distance Education Centre (AMDEC) did not offer its first courses until the 1997-98 school year. The first K-12 online learning programmes in Canada to offer courses were during the 1995-96 school year, one of which was the Electronic Distance Education Network (EDEN) in Ontario. EDEN was a project originally designed by the Orillia Learning Centre of the Simcoe County District School Board to deliver high school courses to adults. This consortium began with six school districts, but expanded to ten to fifteen school districts prior to the conclusion of the programme around 2001-02. This was followed in Ontario by the first online learning programme that focused on K-12-aged students, the Virtual Learning Centre created by the Trillium Lakelands District School Board in 1997-98.

By 2000, there were several district-based programmes in operation in the province. Joining Avon Maitland, Simcoe, and Trillium Lakelands were school boards in Peel, Durham and Toronto – all of whom were operating in isolation and using a variety of systems. In September 2000, many of these school boards came together to form the Ontario Strategic Alliance for e-Learning. This Alliance operated under a co-operative model where each district was responsible for writing two courses and student enrollments were shared across the Alliance. This Alliance would eventually grow into the Ontario e-Learning Consortium by the 2005-06 school year (see http://www.oelc.ca/) and currently operates the Ontario Virtual Academy.

In September 2004, the Ministry of Education began to play a more active role. The first steps involved a survey of all of the distance education courses currently being offered throughout the province, which eventually led to the decision to host a provincial course management system and create a standard set of online courses that all school boards could use. During their first year of this initiative, the Ministry developed 25 courses and added another 35 during its second year (and their course development process continues to this day). It was this process that helped facilitate the growth of the original Ontario Strategic Alliance for e-Learning and its evolution into the Ontario e-Learning Consortium.

It should be noted that the French-language school boards in Ontario have also been active in distance education, and this activity is perceived to have been much longer than that of the English-language boards. Unfortunately, there is little to no published information in English about this activity (see http://www.cforp.on.ca/samfo/ for French-language information about their current co-operative online programmes).

How K-12 Online Learning is Governed

The Ministry of Education through e-Learning Ontario manages K-12 online learning in Ontario. Under this model, a school board can sign an agreement with the Ministry to offer online learning using the Ministry's course management system and the course that they have developed (see http://www.elearningontario.ca/eng/strategy/schoolboards/default.aspx for details). The school board has the responsibility to staff their own online learning programmes and offer the courses to students in their own board. Should students from other boards wish to register in one of these courses, there is a $600 fee (although most of the boards involved in the Ontario e-Learning Consortium use a co-operative or trading model instead of insisting upon the fee). In addition, by entering into this agreement, a school board cannot offer courses from their own course management system that were developed by the Ministry. They are free to use their own course management system to offer courses that they have developed on their own.

As online learning is not recognized as a separate schooling entity, the teachers hired by the board to instruct in the online learning programme are all based within one of the board's schools and for legal purposes are considered staff at that school. Similarly, students are registered at a brick-and-mortar school and if they are registered for an online course that are considered registered for that course at the school the teacher is based in. For example, a student in School A is registered for an online chemistry course and their other two courses at their brick-and-mortar school. The online chemistry course is being taught by a teacher who is based at School B. The student is considered to be registered at School A part-time for the two face-to-face courses and part-time at School B for the online course. Prior to the 2007-08 school year, because the student was only taking two courses in School A they were considered a part-time student and the school board would only receive funding from the Ministry based upon part-time enrollment for that student. However, the Ministry changed how the full-time enrollment is allotted for online courses and now this student is considered full-time and the school board receives the entire full-time enrollment funding allotted to that student.

There is one public school exception to the online learning programmes not being considered schools. When AMDEC was first created in 1994-95, it received a Ministry identification number or MIDENT#. This means that AMDEC is able to enroll students, directly hire teachers, and grant credits to students without the need for the involvement of a brick-and-mortar school.

Beyond the provisions in the agreements with e-Learning Ontario, the Ministry does not have specific policies related to K-12 online learning in the province of Ontario. Online learning programmes are simply required to follow the regulations that apply to brick-and-mortar schools. For example, the deadline for funding purposes of the Ministry's full-time enrollment allotment is 30 October. This means that any student still registered in a school, which would include those registered in online learning courses, who is still on the book as of 30 October, the school board receives funding for that student. If students were to dropout on 1 November, it would not matter for funding purposes. Moreover, the Ministry does not have specific regulations concerning attendance in an online learning programme, and individual boards must determine if a student still has active "attendance" in their online learning programme by 30 October. Individual school boards also make decisions on what constitutes a course completion, if their online learning programme has a trial period, how long that period lasts, how all statistics beyond those specifically required by the Ministry for brick-and-mortar schools are kept, etc..

K-12 Online Learning Activity

At present, there is a great deal of variety in the K-12 online learning activity in Ontario. The Ministry of Education continues to offer some courses directly through the Independent Learning Centre. In addition to this, fifteen school boards currently participate in the Ontario e-Learning Consortium co-operative model through agreements that they have signed with the Ministry (see http://www.ontariovirtualacademy.ca/ for a complete list of participating boards). At least three additional school boards have their own online learning programmes (i.e., Toronto, Trillium Lakelands and Avon Maitland). As there is no central repository, there may also be other boards offering online learning opportunities.

In addition to these public boards, there are at least three private online learning schools operating in Ontario: Virtual High School (Ontario), Ottawa Carleton e-School and Keewaytinook Internet High School. All three are Ministry approved, which means that they are able to grant credits that are recognized by the provincial Government for student transcript purposes. The model utilized by one of these three private virtual schools is worthy of further description. The Keewaytinook Internet High School is focused primarily upon aboriginal fly-in communities (i.e., communities that are only accessible by plane) in Northern Ontario. The virtual school has a physical computer lab or classroom in 11 communities that students can attend in order to take their online courses. Keewaytinook uses a combination of their online teachers and classroom assistants to ensure the school has a physical presence in each classroom. The physical presence acts as a source of technical assistance for the students, and they also provide a support structure or coaching role to assist the students in the soft skills necessary to be successful in an independent online learning.

Due to this variety, there is currently no single source of information to indicate their level of participation in any of these programmes.

4.3   British Columbia

As noted earlier, the population of British Columbia is almost four and a half million people. However, half of this population lives in the metropolitan Vancouver area and almost three quarters of it lives in the lower mainland or on Vancouver Island. This means that like most Canadian provinces, there are significant portions of the province that are considered rural and some that are quite remote. Due to this remoteness, it is not surprising that British Columbia was the first province to begin using distance education at the K-12 level.

History of Distance Education

The first K-12 distance education courses were elementary school courses offered by correspondence in 1919 when notes and textbooks were sent to 86 children living in isolated parts of the province, thirteen of whom were living in lighthouses (Toutant, 2003). This was followed by the creation of an Elementary Correspondence School, and by 1929 high school correspondence courses were also being offered (Dunae, 1997-2008). This model has evolved, although in some cases not a great deal. At present within British Columbia, distance learning is offered under the label of distributed learning. The majority of districts in the province have signed contracts with the Ministry of Education to allow them to operate distributed learning programmes. However, the systems of distributed learning throughout the province include everything from the traditional correspondence-style education described above to online learning opportunities that are more typically associated with virtual schooling (and several other methods of delivery between these two extremes).

During the 1980s, the province created nine regional distance education schools. These schools utilized curriculum materials developed by the Ministry. Course delivery was still done using correspondence education. These nine bodies still exist today as a regional support network for the current distributed learning programmes. In the 1990s, funded the Open Learning Agency to operate Open School BC, which was intended to provide broader provincial support for e-learning initiatives. The Open School made the first steps in British Columbia towards the use of online learning as a delivery model. Through the Open School the Ministry maintained responsibility for course development. In the following decade, the government closed the Open Learning Agency. The Open School currently operates in another government department using a shared services model on a cost recovery basis and is used primarily by school districts that want to be able to offer distributed learning but do not want to be responsible for their own programmes.

In addition, there have been other distance education organizations in operation in British Columbia. BCEd Online was an e-learning consortium of school districts that partnered with other educational institutions and organizations, along with government, to support online learning for students who learn in the classroom and at a distance. This organization merged with the Virtual School Society in 2006. The Virtual School Society is the current managers of the LearnNowBC resource, a website designed to provide a clearinghouse for distributed learning opportunities in the province.

How K-12 Online Learning is Governed

The Ministry of Education is responsible for governing distributed learning programmes in the province and school districts must enter into a formal contract with the Ministry in order to operate a distributed learning programme. This is unique to British Columbia. The province also has a number of specific policies and regulations that apply to the distributed learning programmes. For example, distributed learning programmes are not limited to the traditional K-12 school year (although many do choose to follow the September to June calendar). Most of these policies are under the direction of the Distributed Learning Unit for public distributed learning programmes (it should be noted that there are independent or private distributed learning programmes that are overseen by a separate branch of the Ministry known as the Office of Independent Schools).

Funding for students in these distributed learning programmes comes from the province's allotted full-time enrollment (FTE) allocation. For Grade 10-12 students, each student's FTE is divided into eight components, with each course representing a component. If a student is enrolled in six courses in their brick-and-mortar school and two courses in their district's distributed learning programme, then the school would receive six eights of the FTE and the distributed learning programme would receive two eights of that FTE. K-9 students, however, can only be enrolled in one school that receives the full FTE allocation. For the distributed learning programmes, enrollment is counted three times throughout the year as a way to determine active attendance in the programme.

The Ministry also has regulations to allow for an open-borders model. Under this model, a student is not limited to the distributed learning programme within their school district, but is free to enroll in a course from any distributed learning programme in the province (and the portion of the student's FTE follows them regardless of school district). There are some restrictions under this model. For example, districts must ensure that students in their own districts are served before they enroll students from other districts. However, as long as space is available, a student from another district cannot be turned away from a course in the distributed learning programme.

The Ministry is also responsible for ensuring that public distributed learning programmes meet compliance audits (i.e., a quantitative measure of success) and quality reviews (i.e., a qualitative measure of accountability). The compliance audits are reviews and verifications of the data that has been submitted by the distributed learning programme to the Ministry related to enrollments, attendance counts, student achievement, etc.. Quality reviews are where teams of two to three individuals selected by the Ministry meet with the distributed learning programmes administrators, teachers, and students. They monitor courses over a period of time, etc. for the purposes of providing the distributed learning programme with feedback on how they can improve upon their operation and the design and delivery of their courses.

Each distributed learning programme is responsible for hiring their own teachers, some of whom work full-time for the programme, others who work part-time for distributed learning and part-time in a brick-and-mortar school. The Ministry requires that teachers who are hired into distributed learning programmes must have experience with teaching in this environment or the programme must provide the teacher with professional development.

K-12 Online Learning Activity

At present, 46 of the province's 60 school districts have entered into agreements with the Ministry for the operation of distributed learning programmes. There were approximately 49,000 individual students enrolled during the 2007-08 school year, representing over 16,000 FTEs. These enrollments ranged from students taking a single course to students taking their complete programme, with the average student taking two or three courses at a distance.

Students enrolled in distributed learning at the kindergarten to grade nine levels must be enrolled full-time in their distributed learning programmes. The historical completion rate for these students was in the 90% range. At grade 10 through grade 12, students can be enrolled on a full-time or a part-time basis. The historical completion rate for these students was in the 20% to 50% range depending on the type of programme and geographic location; however, this figure is currently in the 65% range.

In addition to the public distributed learning programmes that are currently available, there are approximately a dozen independent or private schools that also maintain distributed learning programmes.

5. Summary and Implications

Virtual schooling, as we know it in North America, began in Canada in 1994. This report seeks to provide needed exposure to the proliferation and developments in K-12 online learning in Canada.

Across Canada, each province or territory is responsible for its own education system. Although there is no federal Department of Education, each provincial or territorial Ministry of Education asserts a greater degree of centralized control over the education system within their jurisdiction – particularly compared to their American counterparts.

The eastern provinces have stronger province-wide programmes (in some instances to the exclusion of any district-based activity), while the western provinces tend to have smaller or dated province-wide programmes and a varying level of district-based programmes. In central Canada, Ontario has a province-wide system but also has extensive district-based and private school initiatives, while Quebec has limited district-based programmes. The three territories make use of district-based programmes in other provinces. There is little K-12 online learning in Prince Edward.

The Ministry of Education in each province and territory is responsible for K-12 online learning. However, in most provinces and territories, there is little in the way of specific policies that govern K-12 online learning. British Columbia is the exception to this trend, where the Ministry of Education has taken many steps to ensure that its distributed learning programmes are not treated in the same manner as its brick-and-mortar school. In this respect, British Columbia has the most progressive policies and regulations designed to address the non-traditional nature of distance education and online learning.

Even with a greater degree of centralization, this patchwork approach of the thirteen provinces and territories has led to many of the same issues that are common in the United States: the lack of consistent policies from state to state, the inability to compare virtual school performance, the difficulty in determining the size and scope of K-12 online learning, etc.. However, there are several factors that better position Canada to be able to address these issues. The fact that there are fewer players in the K-12 online learning landscape in Canada and the fact that Ministries of Education in Canada have a natural outlet for these kinds of national discussion (i.e., the Council for Ministers of Education) better position Canada to be able to address these issues.

The model that has developed in British Columbia is a positive example that could be utilized by other provinces in this regard. From our position, a more in-depth understanding of specific policies for K-12 online learning in each of the provinces (beyond the snapshots of the three profiled in this report) is needed to allow for better comparisons between and understanding of each of the provinces and territories. This report is the first step in building the research and literature of K-12 online learning in Canada. We look forward to expanding the research in years to come and welcome partners who join us in our mission and vision to improve education through expanding access to high quality online learning opportunities for every student in North America and world-wide. This report is a first-step and we look forward to expanding the scope of this annual study of Canada in years to come.

6. Selected Resources

6.1   General

Annotated Bibliography of K-12 Online Learning Literature in Canada
http://virtualschool.wikispaces.com/bibliography

Community Access Program – Industry Canada
http://cap.ic.gc.ca/index.htm

SchoolNet – Industry Canada
http://web.archive.org/web/20070620112548/http://www.schoolnet.ca/

Virtual School Glossary
http://virtualschool.wikispaces.com/glossary

Virtual Schooling in Canada: Digital Portal
– a brief overview of K-12 online learning in Canada created as a part of a SSRHC funded project
headed by Dr. Elizabeth Murphy

http://virtualschoolscanada.googlepages.com/

6.2   Newfoundland and Labrador

Centre for Distance Learning and Innovation (CDLI)
http://www.cdli.ca/

Supporting learning: Ministerial panel on educational delivery in the classroom
http://www.edu.gov.nf.ca/panel/panel.pdf

6.3   Nova Scotia

Chignecto-Central Regional School Board
http://ccrsbonline.ednet.ns.ca/

Core French 12 Online
http://corefrench12.ednet.ns.ca/index.shtml

Nova Scotia Correspondence Study Program
http://lrt.ednet.ns.ca/corr_studies/courses.shtml

Nova Scotia Virtual School
http://nsvs.ednet.ns.ca/

Strait Regional School Board
http://www.srsb.ca/disted

6. 4   Prince Edward Island

Minister's Directive No. MD 2001-05 Distance Education
http://www.gov.pe.ca/educ/index.php3?number=76712

Minister's Directive No. MD 2008-05 Distance Education
http://www.gov.pe.ca/educ/index.php3?number=1023679&lang=E

National HomeEd
http://www.nationalhomeed.com/

6.5   New Brunswick

Educational Services Division – Distance Learning
http://www.gnb.ca/0000/as/dlgi-e.asp

6.6   Quebec

Education in Quebec: An Overview
http://www.mels.gouv.qc.ca/daic/pdf/educqceng.pdf

Société de formation à distance des commissions scolaires du Québec (SOFAD)
http://www.sofad.qc.ca/

6.7   Ontario

e-Learning Ontario
http://www.elearningontario.ca/

Independent Learning Centre
http://www.ilc.org/cfmx/home/home.cfm?Menu_ID_Sel=50&Lang_Sel=1

Keewaytinook Internet High School
http://www.kihs.knet.ca/drupal/

Ontario e-Learning Consortium
http://www.oelc.ca/

Ontario Virtual Academy
http://www.ontariovirtualacademy.ca/

Ottawa Carleton e-School
http://www.ottawacarletone-school.ca/

Service d'apprentissage médiatisé franco-ontarien (SAMFO)
http://www.cforp.on.ca/samfo

Toronto District School Board Virtual School
http://www.tdsb.on.ca/SchoolWeb/_site/viewitem.asp?siteid=10210&pageid=10380&menuid=11755

Virtual High School (Ontario)
http://www.virtualhighschool.com/

Virtual Learning Centre, Trillium Lakelands District School Board
http://www.tldsb.on.ca/e-learning_vlc.htm

6.8   Manitoba

Ministry of Education, Citizenship and Youth: Distance Learning
http://www.edu.gov.mb.ca/k12/dl/index.html

6.9   Saskatchewan

Association of Online K-12 Schooling
http://www.scs.sk.ca/cyber/aok12s/home.htm

Technology Supported Learning

http://www.education.gov.sk.ca/TSL

Interactive Televised Instruction
http://www.education.gov.sk.ca/services/ITI

Saskatchewan Distance Learning Course Repository
http://www.skdistancelearning.ca/

6.10   Alberta

Alberta Distance Education Centre
http://www.adlc.ca/

Sunchild E-Learning Community
http://www.sccyber.net/www/index.php

6.11   British Columbia

Distributed Learning Branch, Ministry of Education
http://www.bced.gov.bc.ca/dist_learning/

Independent Schools Distributed Learning Program, Ministry of Education
http://www.bced.gov.bc.ca/independentschools/bc_guide/dl_program.htm

LearnNowBC
http://www.learnnowbc.ca/

Open School BC
http://www.pss.gov.bc.ca/osbc/

6.12   Yukon Territory

2006-07 Ministry of Education Annual Report
http://www.education.gov.yk.ca/pdf/2006-2007_yukon_education_annual_report.pdf

Technology-Assisted Learning
http://www.education.gov.yk.ca/psb/technology_assisted_learning.html

6.13   Northwest Territories

Senior Secondary Handbook – Distance Learning
http://www.ece.gov.nt.ca/Divisions/kindergarten_g12/curriculum/SENIOR_SECONDARY_handbook/Senior%20Sec%20
Admin(New)/Senior%20Sec%20Admin(New)/Chapter%2017.pdf

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Call for Sponsors for the 2009 "State of the Nation Study of K-12 Online Learning in Canada" Study

NACOL is seeking funding for next year's K-12 online learning study of Canada. If your organization is interested in participating through sponsorship by supporting the second annual "State of the Nation Study: K-12 Online Learning in Canada," please contact Michael Barbour, principal investigator at mkbarbour@gmail.com, or Susan Patrick, CEO, NACOL at spatrick@nacol.org.

Your participation as a sponsor helps support more widespread participation from virtual schools across the country in the K-12 Online Learning in Canada project and is an ideal opportunity to demonstrate your organization's interest in and commitment to supporting online learning. Your company or organization will be recognized for its support of virtual schools seeking to effectively expand educational options for K-12 students across Canada.

NACOL currently has over 2,100 members and our previous studies are readily available to all members, as well as members of their organizations who enrolled over 1,000,000 students during the 2006-2007 school year. With your support, you will be recognized among educators as an organization committed to helping support online learning and virtual schools around the world.

Please review the sponsor benefits and opportunities for the State of the Nation:
K-12 Online Learning in Canada study:

- Recognition in all post-study press releases, presentations and distribution of information
- Opportunity to provide input into the program survey
- Participate in project conference calls
- Project sponsor name and logo listed on all promotional materials
- Project sponsor name and logo listed on the final report
- Receive 50 copies of the final report
- Receive Executive Summary of the final report for use on company website and for marketing purposes
- Receive recognition as a thought-leader for cutting-edge research of K-12 online learning in Canada for sponsoring the research study
- Sponsor recognition during NACOL Webinar highlighting the study

Cavanaugh, Barbour and Clark (2008) stated "while K-12 online learning programmes have evolved and grown over the past decade, the amount of published research on virtual schooling practice and policy is limited."

This is particularly true in Canada where schools have not had access to federal funding to complete external evaluations of their programmes and have not had to find internal funding to meet state or federal reporting guidelines. In addition, the climate for educational funding in Canada does not allow for the same level of government, foundation, and private support for education research. Finally, because of these limits on the availability of funding for educational research, K-12 online learning programmes have not been able to provide financial support for large-scale surveys of K-12 online learning activity as has been done in the United States (e.g., Watson & Ryan, 2007).

For-profit and non-profit institutions, organizations, individuals, foundations and companies are welcome to partner with NACOL for sponsoring the study. Please consider sponsorship of this important survey and report to be conducted annually. Your consideration is deeply appreciated.