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

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International Association for K-12 Online Learning

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Acknowledgements

Foreword

There is no doubt that technology has transformed the everyday life of many Canadians, particularly with the introduction of computers and the Internet.

In the classrooms, technologies play an important and exciting role by opening up new ways of teaching and learning, with limitless possibilities for exploration.

Over the past decade, the proliferation of online resources—such as e-learning courses and programmes, and virtual schools—has rapidly changed the learning environment within Canada and other countries.

Online learning is a powerful tool with the potential to expand the educational opportunities of all students. At the elementary- and secondary-school (K–12) levels, considerable effort has been devoted to acquiring computer hardware and software for schools, connecting them to the Internet, and helping educators improve their own Information Communication Technologies (ICT)-related skills and knowledge.

While conclusive, longitudinal studies remain to be done, there is growing evidence that online learning initiatives are positively impacting the lives and learning of Canadian students. Learners are already experiencing enhanced learning through Internet access, student portals, digital libraries, and wireless networks that support laptops, handheld and other portable devices.

Canada's younger generation is primed to take advantage of the potential of learning technologies. Computers, multimedia programmes, chat rooms and other manifestations of the digital age are now common throughout children's developmental years—to which almost any parent or educator will attest.

However, while the innovative use of online technologies has permeated many of Canada's schools, policies and practices have not kept pace with the expectations of today's technologically-savvy generation of students. Online learning holds tremendous promise and potential, but the journey is far from complete.

State of the Nation: K-12 Online Learning in Canada provides an important opportunity for us to gain critical information and insight into how Canadian educational authorities and governments are integrating ICTs into learning and teaching—particularly for preparing students for the needs of today's economy and reaping the benefits from the most recent learning tools.

Erin Mills

Senior Researcher, Canadian Council on Learning
Lead author of the 2009 *State of e-Learning in Canada report*

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Executive Summary

Two years ago, the then North American Council for Online Learning released the initial *Snapshot State of the Nation: K-12 Online Learning in Canada* report. This study was the first systematic examination of K-12 distance education policies and activities in each of the thirteen Canadian provinces and territories. One year ago, the International Council for K-12 Online Learning released the more complete *State of the Nation: K-12 Online Learning in Canada* report. This examination found that the regulation of K-12 distance education varied from language in the *Education Act* or *Schools Act*, Ministerial Directives, policy documents issued by the Ministry of Education, agreements signed between the Ministry and the individual school boards, and articles included in the collective bargaining agreement between the Government and teachers' union. Additionally, the author reported that all thirteen provinces and territories have some level of K-12 distance education activity, with British Columbia having the highest number and highest percentage of student participation and Prince Edward Island having the least.

The 2010 *State of the Nation: K-12 Online Learning in Canada* has found similar trends in the regulation of K-12 distance education. British Columbia continued to have the most extensive regulatory regime (and this report explores one aspect of that regime—the quality review process—in one of the brief issue papers). This time last year, three provinces reported they were engaged in the process of reviewing and updating how K-12 distance education was regulated. At present, all three reviews are still in progress. However, Alberta has shifted the focus of its review from a distance education strategy to a focus on creating an educational environment where online and blended learning are as common as the textbook and whiteboard are today. Additionally, Canadian teachers' unions continue their cautious support of the use of distance education in the K-12 environment, and have been more interested in ensuring that the workload and demands placed upon distance education teachers are consistent with their classroom-based counterparts.

All thirteen provinces and territories continue to use distance education within their K-12 systems. In many instances, the method of distance education delivery is still using print-based materials, although there is also a greater reliance upon synchronous tools such as traditional video conferencing or virtual classroom software. It is for this reason that the term K-12 distance education is used interchangeably in this report with K-12 online learning (however, it should be underscored that much of the K-12 distance education in Canada does not take place online). In many instances, distance education continues to be seen as a substitute when face-to-face learning is not feasible or economic (e.g., in rural jurisdictions, for specialised studies such as French language instruction for native speakers, or for students who aren't able to succeed in the traditional classroom environment). This kind of use is exemplified in the Brief Issue Paper on the Keewaytinook Internet High School, a programme that allows aboriginal students in Northern Ontario to remain in their communities and complete their education, as opposed to having to leave their home town and travel hundreds of kilometres away simply to graduate from high school. In most jurisdictions, K-12 distance education is not viewed as an educational option of choice, only one of necessity. Even with this common sentiment, K-12 distance education enrolment in Canada is estimated to be between 150,000 and 175,000 students (or somewhere between 2.8% and 3.4% of the total K-12 student population).

Introduction

In a study of connectivity and information and communications strategies infrastructure conducted by Statistics Canada (but sponsored by Industry Canada's SchoolNet programme, provincial and territorial governments, education associations, school boards, schools, teachers and students), Ertl and Plante (2004) reported that the number of K-12 schools connected to the Internet ranged between 91% in Manitoba to over 99% in Newfoundland and Labrador and New Brunswick. Further, the authors indicated that Quebec had the most students per Internet-connected computer with 6.5 students/computer and the Yukon had the least number of students per Internet-connected computer with 2.9 students/computer. Based on the data, the authors concluded that "virtually all schools in Canada had computers and nearly all were connected to the Internet." Further, "not only are schools connected to the Internet but access to the Internet within schools is also pervasive… [and] an overwhelming majority of schools used broadband technologies to access the Internet." However, in a subsequent Statistics Canada study of schools information and communication technology use, Plante and Beattie (2004) found only 30% of schools—and only 40% of secondary schools—were using the Internet for online learning.

Within the Canadian context, K-12 online learning has not been seen as an option for those advocating the more conservative school choice movement. In fact, even in the Province of Alberta (i.e., the only province that has charter school legislation) there are no online charter schools. As such, K-12 online learning has historically been viewed as a substitute to be used when face-to-face learning is not available, particularly for students in rural areas. For example, in their report the *State of e-Learning in Canada*, the Canadian Council on Learning (2009) reported that more rural schools than urban schools reported having students who participated in online courses and that this was often to supplement the curriculum, particularly when courses were either unavailable or could not be offered due to limited resources or teachers.

Three years ago, this research project began an examination of K-12 distance education in Canada. The term K-12 distance education is used, as opposed to K-12 online learning, because much of the K-12 distance education that occurs in Canada still utilises print-based, audiographics, and video conferencing tools. The initial efforts resulted in the 2008 *Snapshot State of the Nation: K-12 Online Learning in Canada* report. This document provided short commentaries about the state of K-12 distance education for each province and territory, along with more developed case studies on the provinces of Newfoundland and Labrador, Ontario, and British Columbia. The 2009 *State of the Nation: K-12 Online Learning in Canada* report was a more complete discussion of the legislation and regulations that govern K-12 distance education in each jurisdiction and description of the various programmes that provide those K-12 distance education opportunities in each of the

thirteen provinces and territories. The goal of this 2010 *State of the Nation: K-12 Online Learning in Canada* report is to update and expand upon the governance of K-12 distance education and the programmes that provide those opportunities, as well as to begin to examine some of the issues facing K-12 distance education in Canada.

Methodology

The methodology utilised for the 2009 report included a survey that was sent to each of the Ministries of Education (see Appendix A for a copy of this survey), follow-up interviews to clarify or expand on any of the responses contained in the survey, and an analysis of documents from the Ministry of Education, often available in online format. During that data collection process, officials from the Ministries of Education in eight of the thirteen provinces and territories responded. The profiles for the remaining five jurisdictions were constructed based on information provided by key stakeholder involved in K-12 distance education in that province or territory and the analysis of documents.

The data collection for the 2010 report began with the provincial and/or territorial profile from the previous year and a request to the Ministries of Education to respond to a series of questions related to their existing profile (see Appendix B for a copy of these questions). In addition to a general updating of information, there was a desire to focus on French-language programmes in English-speaking provinces and independent or private school programmes. Therefore, in addition to the general Ministry of Education contact, the author sought to contact individuals specifically responsible for these additional programmes.

There were nine Ministries of Education that responded to this year's request for data collection. In three provinces there were key individuals or organisations involved in the practice of K-12 distance education that provided information. In one province and one territory there was an analysis of documents for any legislative or regulatory changes. Table 1 presents a summary of the data sources for the past three years.

Table 1 indicates that the provinces of Ontario and Alberta are the only jurisdictions where there has never been Ministry participation. However, the information for these jurisdictions should be viewed as thorough due the efforts of individuals involved with organisations such as the Ontario eLearning Consortium, *Consortium d'apprentissage virtuel de langue française de l'Ontario,* and the Alberta Distance Learning Centre; along with the wealth of online documents provided by e-Learning Ontario and Alberta Education.

Drafts of each profile were provided to the Ministries prior to publication, along with key stakeholders that provided information for the profile. These individuals were given the opportunity to suggest revisions, most of which were accepted by the author (and all of which were seriously considered).

Table 1. Data collection sources for the *State of the Nation: K-12 Online Learning in Canada* over the past three years

Province/Territory	2008	2009	2010
Newfoundland & Labrador	KS / DA	MoE / DA	DA
Nova Scotia	DA	MoE / DA	MoE
Prince Edward Island	DA	KS / DA	MoE
New Brunswick	DA	MoE / DA	MoE
Quebec	KS	KS / DA	MoE / KS
Ontario	KS / DA	KS / DA	KS / DA
Manitoba	KS	MoE / DA	MoE
Saskatchewan	KS / DA	MoE	MoE
Alberta	DA	KS / DA	KS / DA
British Columbia	MoE / DA	MoE / DA	MoE
Yukon	DA	KS / DA	MoE / DA
Northwest Territories	DA	MoE / DA	DA
Nunavut	DA	MoE	MoE

MoE – Ministry of Education, KS – Key stakeholders, DA – Document analysis

Definitions

As with the previous reports, for those familiar with K-12 online learning in the United States most of the terms utilised are consistent with terms used to describe K-12 online learning in Canada. There are some differences. Often in the United States, online charter schools and other full-time programmes are referred to as cyber schools. Charter schools do not exist in most Canadian provinces, and in the sole province where they do exist there are no online charter schools. As such, the terms virtual school and cyber school—along with Internet high school—are used interchangeably in the Canadian context.

In many Canadian jurisdictions, online learning is often only a portion of the overall K-12 distance education offerings. Many provinces use the term distributed learning to describe all modes of delivery for K-12 distance education (i.e., print-based, video conferencing, and online learning). Additionally, two other terms that may also be unfamiliar to a non-Canadian audience are:

Anglophone – English-speaking
Francophone – French-speaking

Also, 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.

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

How to Read This Document

This *State of the Nation: K-12 Online Learning in Canada* report begins with a discussion of several issues related to the design, delivery and support of K-12 distance education in Canada. The first of these brief issue papers outlines the use of a provincial network to provide online professional development for K-12 teachers in Quebec. The second examines the provision of K-12 online learning to a group of aboriginal youth in Northern Ontario. The third discusses how blended learning is being used in one school district. Finally, the fourth describes a model of quality assurance used by one province with its K-12 distributed learning programmes.

The remainder of the report is organised in a regional fashion. The information begins with a national overview, which is followed by a focus upon each of the four regions of Canada: Atlantic, Central, Western, and Northern. Within each region is a general description and then detailed provincial/territorial profiles based upon the information obtained.

Each profile is designed to look at the level of K-12 distance education activity and regulations in that province or territory. The profiles in the 2009 report were organised to provide a detailed description of the distance education programmes that were operating in each province and territory. Additionally, there was a lengthy discussion of the provincial or territorial policies from various legislative and regulatory documents (e.g., ministerial directives, collective agreements, memorandums of understanding, and departmental memorandum). Finally, there was a specific focus on the funding of distance education, and issues related to quality assurance, teaching, and curriculum in distance education offerings.

This report provides a more condensed examination of each province and territory. Information that has not changed has been summarised, and in instances where information needed to be updated a more descriptive discussion is provided. It should also be noted that this information 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 2010.

Finally, continuing a feature introduced in the previous report, when possible there is a vignette included to provide a more personalised perspective of students, teachers, schools, and programmes involved in K-12 distance education in that jurisdiction. These vignettes focus on various aboriginal, private school, rural, and synchronous programmes across Canada.

Brief Issue Papers

Online Professional Development in the Remote Networked Schools (Quebec)

Thérèse Laferrière, Laval University

Teacher professional development benefits from the availability of online resources. Educators may approach it as a cost-saving tactic or a promotion device. While some downplay its usefulness, online resources and tools provide affordances for teacher professional development of many forms. We argue in this brief issue paper for highly interactive and collaborative teacher professional development as pressure mounts for preparing a workforce with more advanced skills and well-informed citizens.

In Canada, this concern was first addressed in the late nineties by the TeleLearning Network of Centres of Excellence (TL-NCE, 1995-2002) research programme.[1] It was also discussed by representatives from all provinces and territories who attended the SchoolNet Advisory Board (see http://web.archive.org/web/20070302084743rn_1/www.schoolnet.ca/snab/). When SchoolNet ceased its activities in 2007, the Advanced Broadband Enabled Learning network in Ontario (http://www.abelearn.ca), the Galileo network in Alberta (http://www.galileo.org) and the Remote Networked Schools (RNS) in Quebec (http://www.eer.qc.ca) were in full swing, and were able to carry on some of the legacy from those early inquiries into the promises the Internet and the Web for educating educators.

The RNS is the setting where we have had the opportunity to co-design teacher professional development since 2002. The RNS is a systemic initiative funded by the Quebec Ministry of Education. One of the aims of the RNS initiative is to enhance the learning environments of small rural schools by transforming them into blended learning environments. Over twenty school districts

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1   See http://wildcat.iat.sfu.ca or http://www.tact.fse.ulaval.ca/ang/html/pdmodels.html or http://www.telelearning-pds.org/tlpds/comcont.html for additional details on this project.

are participating and *Centre francophone d'informatisation des organisations* (CEFRIO), an agency devoted to knowledge transfer and the networking of organisations, is coordinating the initiative. School and teacher participation is voluntary but there is increasing local pressure as results have been most encouraging (Laferrière et al., 2008) and as the institutionalisation of the RNS model progresses within and among school districts.

Innovative teaching is carried out using telecollaborative tools that facilitate verbal interactions, using a multi-user desktop videoconferencing system, and written interactions, using Knowledge Forum, between students from different schools.[2] Researchers from four universities have partnered with participating school districts to offer onsite/online professional development activities to teachers and other educational professionals. They have applied a design research model (Collins, Joseph & Bielaczyc, 2004), that is, a research approach that is especially suitable for innovation purposes as capacity is built from iteration to iteration. For researchers, the challenge has been to provide research results growing out of data that could be quickly gathered and analysed while being meaningful to practitioners. We engaged in virtual ethnography and collected data from the online learning activities and projects conducted with the support of the telecollaborative tools. Iteration meetings were carried mostly online using the same videoconferencing system as the one teachers used with school learners. These meetings brought back to school-based educators research results that contributed to their decision making inside and outside the classroom, and to the definition of new research questions. This form of highly interactive and collaborative teacher professional development could not have happened without going online.

Another tool available to the teachers in these twenty-plus rural school districts has been daily access to the online distributed team of university-based educators through a dedicated room of the iVisit videoconferencing system. There is always a university-based educator available to respond to inquiries from teachers, whose questions may be related to a technical, pedagogical, organisational or research-oriented matter. The team of six-eight persons is composed of graduate students who are familiar with the initiative and teacher educators, each devoting one or two three-hour presence a week on the videoconferencing system. They are not always busy responding, and can carry on other activities while not interacting with a teacher, a technician, a school principal or even a student. This form of ongoing support in one's daily practice is much appreciated by the RNS educators. As they gain experience, the conversations become more pedagogically oriented. They may even be evidence-based conversations of a reflective nature over one's practice when, for instance, an educator comes online asking for analytical results that pertain to his or her own classroom, school or district.

Beyond all expectations, such just-in-time support brings a sense of closeness between university-based and school-based educators. The "ivory tower" collapses, and in no time we may feel a teacher's excitement as she talks about how she engaged her students in a new project or the disappointment when a planned online activity between two different classrooms is cancelled for a technical matter. These emotional moments help build a sense of belongingness to the RNS professional community. However, it is the analyses conducted over verbal or written interaction that provide a deep sense of realness regarding teacher professional development to both practitioners and ourselves as teacher educators. In other words, classroom-based research results inform teacher professional development, and bring more authenticity to the process. This is also true when we

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2   Exemplars of learning activities and projects are available at http://www.eer.qc.ca/projets/

offer professional development online sessions to ten or fifteen participants at a time as we have plenty of exemplars to work with.

These most rewarding forms of professional development would not be possible outside of a major systemic initiative devoted to innovation, a motive for change (small rural schools that close have a highly detrimental effect on the town they are part of), and a university-school partnership that value professional development and collaborative research.

Keewaytinook Internet High School: Moving First Nation Students ahead with Technology in Ontario's Remote North

Darrin Potter, Keewaytinook Internet High School

For decades, students in most of Canada's remote First Nation communities had no choice other than leave their home communities if they wished to pursue a high school education. Many communities in the Nishnawbe Aski Nation (NAN) territory did not have the numbers to financially justify a high school funded through the federal Department of Indian and Northern Affairs. So each year communities in the north were emptied of students age 13 and above who travelled to cities and communities, as far away as Toronto, to try and attain the secondary education that other Canadians take for granted in their home communities or area. Many of these students experienced a shock in culture, being separated from their parents and families, education programmes not designed for First Nation students, and new peer influences. Some students experienced cycles of failure, as they tried year after year to make it in this new system only to be sent home after a few weeks when it was established that they were not doing well. Sadly, many students did not make it home alive, with an unbelievable number of the First Nations youth returning home in caskets due to an inability to handle the changes that life away from home brought.

In the late 1990's Keewaytinook Okimakanak (KO), a chiefs' council in the NAN territory, was involved in an Industry Canada initiative to investigate the community effects of broadband technologies in the advancement of economic and social growth in First Nation communities. This enabled advancements in the communication technologies infrastructure for medical programmes, economic development and general educational opportunities—as well as other local initiatives. With the new possibilities in these communities, there were more people willing to return and stay as the economy looked healthier. At a chiefs' meeting in Winnipeg in 1998, a chief from Deer Lake First Nation (i.e., a First Nation community about 1000 kilometres northwest of Thunder Bay) described the need to provide a quality education to their high school students—many of whom were experiencing social and academic readiness challenges when they were forced to leave their community to attend secondary school programmes in cities and communities hundreds of kilometres from their homes. The technology that had been put in place from the earlier SMART

programme seemed like a natural fit to provide the backbone for an online high school. This was the beginning of the Keewaytinook Internet High School (KiHS) in 1999. The original pilot project focused on the grade eight curriculum, with classrooms located in three of the KO communities. The success of this pilot established the need and support to establish an online school that was inspected by the provincial Ministry of Education, but funded by the federal Department of Indian and Northern Affairs. KiHS was the first of its kind in Ontario and one of the first in Canada.

KiHS provided parents and students a way to continue in the local community dynamic, yet still provide the youth a quality high school programme using a delivery model focusing on the role of two teachers: an online teacher and a local teacher. The programme approaches education from a community perspective and has a classroom identified in each partner community where an Ontario-certified teacher works. Students are required to attend the classroom from 9 to 4 each day and they are tutored and mentored by the local teacher and classroom assistant in all subject areas. Each teacher is also responsible for teaching three of the online courses each academic year and these are delivered online to students in all of the partner communities. The students complete their actual studies online. The programme is primarily asynchronous, with online teachers posting activities each Sunday and students completing those activities and assignments online as the week progresses. Online teachers also schedule synchronous sessions using *Elluminate*® or *Adobe Connect*, as well as using video conferencing, to work on activities that require more direct instruction. In the local classroom the teachers ensure that students have the tools and understanding for task completion. Teachers also work with the local classroom assistant to move students ahead. The school year is divided into four terms of nine weeks and students can register for two courses each term, which gives them opportunity to earn a total of eight credits a year (not unlike traditional classrooms across Ontario). Some students decide to do an additional credit if they have shown to their teacher and the administration their ability and commitment towards their studies.

The teaching presence is established using instructional design, monitoring and providing feedback, and providing direct instruction to the students, as well as direct interaction with their local students. From our experience, students respond better to having a teacher present when trying to problem solve or committing to moving ahead in their educational plan. When KiHS has a positive interaction among the students, teacher, and assistant, we see more involvement and success from the students in this community. Being present in the community and experiencing the local dynamics also allows the local teacher to respond to the needs of the students as an extension of their community. KiHS has expanded from three communities in the original pilot for Grade 9 to now operating in fourteen communities with programming in Grades 9 to 12. This expansion allows the programme to develop more initiatives in line with the Ministry, along with providing a larger variety of options for students. Online/Local teachers use their subject matter expertise, and their knowledge of the community and students, to develop and deliver a curriculum that is appropriate to Ministry standards while still including cultural relevance. These teachers have rich professional and life experiences, as they come from all areas of Canada and even beyond to work in this innovative programme. Many teachers have established roots in the programme and have remained for five or more years. This enhances the continuity of our course delivery and establishes a stronger community presence in our partnerships.

Many of the remote communities that KiHS serves did not have any means of providing a secondary education to students before partnering with KiHS. There have been other distance learning

programmes available, however, the success rate was generally dismal because students were required to work independently (often without having gained the independent learning skills required to be successful in that environment). With the addition of local community classrooms and a mandatory attendance for students, KiHS has developed a model where the students are well supported. They have the online instructor, the local teacher/mentor and, in many cases, a local classroom assistant. This is in addition to the horizontal support they receive from other students in their local classroom and in their online classroom environment. The programme aims to provide a superior supported environment that fosters student involvement and success.

Additionally, many very gifted students were being left behind in their educational potential, as no academic programmes were available in any of the First Nation schools in the NAN territory. KiHS provides access to all three streams of Ontario's curriculum in grades 9 and 10 leading to workplace, college, and university level preparatory courses in grades 11 and 12. KiHS also has a special education specialist who travels throughout the partner communities. This specialist is responsible for developing accommodations and modifications that allow students who have never before experienced success in an academic environment the opportunity to have success in a high school programme. KiHS has also developed partnership with an adult learning programme in Thunder Bay to allow many adults who did not have the opportunity to finish high school the chance to succeed and achieve their Ontario Secondary School Diploma (OSSD) through the Prior Learning and Recognition (PLAR), a Ministry of Education initiative. Finally, KiHS has established a Co-op Education programme where students are able to gain valuable skills in the community workplace to help them move closer to a career choice while earning school credits in the process. As students become aware of the skills needed and opportunities available in their community, they are in a much better informed position to plan for a future in their community.

The effects that KiHS has had on its partner communities have been immeasurable. There are additional opportunities for students to stay engaged in the formal educational process, reducing the number of students previously found wandering the communities. KiHS focused on its grade 11 and 12 programme in 2008, and has since graduated 22 students. The programme added additional senior courses in the compulsory areas because of a need recognised by the community partners. Approximately 80% of these graduates have gone on to post-secondary institutions. The overall success of KiHS has increased dramatically since it was first launched in 1999. While the initial pilot year produced results similar to many of the other First Nation high school programmes with a 19% successful completion rate, KiHS has shown a continual improvement and achieved a successful completion rate of 55% for the 2009-10 school year (with some partner communities experiencing rates above 80%). This is significantly higher than many other First Nation high school programmes. Additionally, the retention rates in the online programme are reaching 90% in many communities, with an average retention hovering at approximately 70% for the 2009-10 school year (retention is measured as the percentage of students still enroled at the end of the course, regardless of grade, compared to the students enroled at the beginning of the course). Enrolment continues to increase, for example there were a record of 220 students active in KiHS during the 2009-10 school year.

KiHS continues to add programming for the ever-growing number of students in these remote communities. For example, an outdoor component has been added to the grade 9 science course, which will give students a chance to travel to a community on the Hudson Bay for one week to learn about the ecology and biology of the area with the assistance of experts from the community. A

student success teacher has also been hired to identify at-risk students earlier in the school year, and to work with teachers to provide a plan and follow-up interventions to ensure these students have the supports they need to succeed.

The First Nation communities in Ontario's remote north had a unique need that was not being met by traditional education programmes. Through the distributed model of KiHS, each small community can have its own fully supported and effective high school with a network of highly trained and motivated staff. Students are now able to remain in their own communities and access the same high quality secondary education they would receive in larger centres, without having to leave the community. Communities no longer have to worry about the challenges their youth traditionally had to face, often unsuccessfully with grave consequences, when leaving the community to obtain their provincially guaranteed education. Students are now able to experience all of the traditions of their community, while getting their secondary education online through KiHS.

Blended Learning in High School

Barb Brown and Ed Kosloski, Calgary Catholic School District

The Calgary Catholic School District (CCSD) is the largest Catholic School District in Alberta situated in a dynamic multicultural city. CCSD has been operating for 125 years, with 106 schools serving 45,000 students from kindergarten through grade 12 living in the city of Calgary as well as the surrounding communities of Airdrie, Cochrane, Chestermere, and Rocky View. Calgary has the highest Internet usage in any Canadian city with 89% of Calgarians surfing the Internet. Calgarians have high expectations for integrating information and communication technologies (ICT) in education and demand a world-class learning environment with programmes that prepare students for the unknown occupations of the future.

Alberta Education is a provincial government ministry that provides funding and system-wide supports for K-12 learning throughout the Province of Alberta. The Ministry is responsible for setting curriculum, policies and standards; including technology in schools. Leading in the use of technology in teaching and learning and innovative practices, Alberta has established ICT learning outcomes integrated across curriculum areas (Alberta Education, 2000). Furthermore, jurisdictions in the province actively research technology implementation and teaching practices, through projects, such as the Alberta Initiative for School Improvement (AISI), as well as grant funded projects through the Ministry.

At the turn of the century, differentiated instruction was a central focus for professional learning and growth in CCSD. At that time, the district initiated an AISI funding distributed learning research project using the *Desire2Learn*® (D2L) learning environment to complement the district's

focus on differentiated instruction and integrating digital technologies. The primary focus of the distributed learning research project was to explore blended learning and student engagement. The term "distributed learning" was selected to describe the project and capture the idea of making provisions for learning in an integrated, efficient and individualised manner in order to meet the diverse needs of today's students. The project proved to be a catalyst for change in teaching and learning practices in eleven high schools across the district (Brown, 2006; Fijal & Brown, 2006), and has continued to evolve over the last decade beyond the original grant funded research initiative. Even though a variety of learning options are now available to students, including online courses, self-directed and self-paced courses, blended courses remain the most prevalent.

Blended learning in CCSD refers to courses that combine synchronous in-person classroom instruction with asynchronous knowledge building utilising digital technologies outside of the classroom. For example, a student may attend a high school class at a scheduled time during the day with a common group of students. The class may be comprised of 30 students at one grade level scheduled for a class with one teacher assigned to the class. The teacher may provide the students with the learning plan, including the objectives, assignments and assessments. The class time may include a variety of learning activities designed to engage students in learning through collaboration, co-creation and dialogic exchanges.The digital learning environment enhances the traditional in-person classroom experience by providing the teacher and students access to readings, allowing time to contemplate questions, and a chance to participate in any pre-learning or preparation related activities prior to class. During class time the digital learning environment may be used to access learning resources or collaborate with peers, the teacher or other outside experts for inquiry based problems. In addition, the digital learning environment can be a powerful knowledge-building tool after the class has concluded when used to extend the classroom learning experience through continued collaboration, reflection, feedback and the opportunity for learning outside of scheduled classroom hours.

Another example of blended learning that occurs in the CCSD might involve a group of 90 students attending a scheduled class with three teachers assigned to the cohort. The students in the cohort may be at different grade levels or have different levels of ability. The students choose from learning activities during class time to meet their individual needs. In this case, the teachers may work together to design the digital learning environment to provide differentiated learning resources, scaffolded learning activities and leveled assessments based on the diverse needs of students in the cohort. The digital learning environment provides opportunities for students to choose from various learning opportunities and experiences. For example, students may participate in online discussions or chats even when feeling uncomfortable or insecure about contributing to in-person discussions and would rather utilise technology for expression and communications on their own time and at their own pace. One teacher noticed that students were posting discussion questions and homework issues at all hours of night and throughout the weekend. Teachers commented that some students who would never raise their hands and respond to questions in class would commonly share their opinions and thoughts in the online discussion forum. It was observed that students, particularly those with language difficulties, appreciate having time to formulate responses before sharing with the whole class. Learning resources, such as large print texts for visually impaired students can be customised and discreetly released to students on an individualised basis. Other multimedia learning resources, such as digital texts using text-to-speech software, podcasts, and webcasts, can be repeatedly accessed by all students as needed. There was a case where a teacher reported that a student was in the hospital and used the digital learning environment to keep in touch with classmates, keep up with class work, and continue engaging in learning.

Even though teachers agree that using D2L supports differentiated instruction (Brown, 2006), it has been common throughout the project for teachers to express frustration with the misuse of the digital learning environment. The pager tool in D2L is an example of a tool considered disruptive by teachers. Some teachers noted students would utilise the pager to continuously communicate and send messages to each other and disrupt class time. However, following the initial novelty of using the pager tool, the teachers and students started to recognise the benefits in being able to send pager messages either synchronously or asynchronously in order to discuss learning. Throughout the research project, teachers have increasingly observed students utilising the digital spaces for communications with their peers and teachers about learning.

In many larger institutions it is common to have course developers or designers build the digital learning environment for the teachers and students. In CCSD the teachers are all considered digital learning designers. From the onset of the research project, each school was allocated a 0.5 FTE teacher to support the project and provide on-site and embedded professional learning at each school. These school-based distributed learning teachers were trained on how to use the D2L platform and how to build digital learning environments with a focus on differentiated instruction. During their half-time of unassigned teaching, the distributed learning teachers provided mentorship and immediate support to teachers in small groups and on a one-to-one basis in supporting the integration of information and communication technologies and to meet the needs of individual students and adapting to students' diverse needs. The site-based support for teacher professional learning through a mentorship model has proven a successful model for continued professional learning and growth in schools. Administrators observed what was termed as a "ripple effect" of collaboration and sharing best practice among teachers. Teachers that were initially reluctant to embrace the digital learning environment started to recognise the benefits of using physical and digital spaces as a means to foster relationships with students.

Student and teacher surveys were conducted annually throughout the project and consistently showed high levels of satisfaction in the access to online resources (Fijal & Brown, 2006). The distributed learning research project has yielded improved learning environments, especially for students with exceptional needs. The following profile is an excerpt from a teacher's anecdotal records using a pseudonym to describe a student deemed at-risk of not completing high school that benefited from the blended learning environment.

> Student Profile: Chris was diagnosed with a developmental delay at an early age. He experiences language difficulties and requires self-management aides. He needs help in promoting independence. He continues to use assistive technology and has been using D2L to access, organise, complete, and submit his work. He requires teacher assistant support and extra time to complete assignments. Chris has been submitting more homework on a regular basis and his grades have been improving since he started accessing the digital learning environment to complement the classroom instruction.

During initial surveys conducted with students there was limited opportunity for students to provide input or suggestions regarding their opinions or feedback about blended learning and the digital learning environment. Once the student surveys were revised to allow for student input through comment fields, it was recognised that an important voice was missing from the research. An unintended finding from the survey data collected was the significance of student voice.

Consequently, students have advised educators to focus on building relationships and personal networks, both in the physical and digital learning environments. Students want to be active participants in meaningful knowledge building and in collaboration with others. Students want to be engaged in purposeful inquiries and would like educators to embrace digital technologies for learning.

The CCSD distributed learning project started as a research initiative focused on differentiated instruction and technology integration at the high school level. The initiative has progressed over the last decade and blended learning, consisting of in-person and online learning, is now part of the common learning landscape for both high school students and junior high students in the jurisdiction. The D2L learning environment provides a rich tool kit for teachers in supporting blended learning through the use of digital technologies for pre-class, in-class and post-class learning.

British Columbia's Quality Framework for Distributed Learning

Tim Winkelmans, e-Learning Programmes Unit
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British Columbia implemented its new distributed learning (DL) legislation and policies in 2006 to provide a quality, dynamic and engaging learning environment that all students in the province can access. Most of the Boards of Education, who are responsible for delivering educational programmes, wanted to operate their own DL schools. The Ministry of Education's interest lay in ensuring that, within such a decentralised model, DL schools were providing students with quality experiences. Also, every student in grades 10 through 12 could choose to enrol in supplemental online courses without local permission, putting even more pressure on the Ministry to emphasise quality.

The various elements within the DL quality framework for the 53 public DL schools are discussed in more detail below. Independent (private) DL schools fall under separate legislation and are subject to a different framework within the office of the Inspector of Independent Schools (although there are significant synergies).

Funding

The first key decision to enhance quality was ensuring that DL schools fit into the same funding formula as neighbourhood schools. Prior to 2006, DL schools received between 50% to 65% of the normal funding allocation. In 2006, this rose to 100%, plus the Ministry granted eligibility for a variety of educational supplements. This meant that DL schools could afford to move away from reliance upon correspondence course markers towards engaged online teachers, and they could develop and implement support services for special needs, aboriginal, and ESL students.

Agreement

The other essential decision was a new legislative requirement for each Board of Education that wished to operate a DL school to have a special *District Agreement* with the Ministry. The *Agreement*, which the Ministry may amend at any time, contains specific requirements for DL schools to follow, in addition to general requirements of schools in legislation. For example, there are specific provisions that:

- prevent Boards from using public funds as incentives to attract enrolments;
- require Boards to meet or exceed DL Standards;
- obligate Boards to participate in measures such as standardised tests, satisfaction surveys, and quality reviews;
- require Boards to list their courses and programmes on the provincial learning portal, LearnNow BC (http://www.learnnowbc.ca/);
- prevent neighbourhood schools from denying secondary students their ability to choose supplemental courses; and
- require Boards to hire teachers with online learning experience or to provide sufficient DL training.

A copy of the generic *Agreement* is available at http://www.bced.gov.bc.ca/dist_learning/docs/dist_learn_agmt.pdf.

Standards

Two documents communicate expected quality levels in instructional services, leadership practices, and content:

- Standards for K-12 Distributed Learning in BC (http://www.bced.gov.bc.ca/dist_learning/docs/dl_standards.pdf)
- Standards for Digital Learning Content in BC (http://www.bced.gov.bc.ca/dist_learning/docs/digital_learning_standards.pdf).

The first DL standards were published in June 2006. Development of the standards began with an environmental scan: two working groups researched global standards and then chose a 'made in BC' approach that included involvement from DL school educators, education content providers, the post-secondary sector, and industry. The current versions are based on recent additional field consultation development and new online learning standards from iNACOL, ISTE, and others.

Each instructional practice or leadership practice standard is a statement about a high-level expectation accompanied by several observable supporting evidence statements that provide guidance without being specific. An example follows:

The development of a sense of community among course participants is encouraged.

Supporting Evidence

- Networking software is available to initiate and engender community.
- Students have frequent opportunities to provide feedback on their learning experience as well as peers. (p. 8)

The *Standards* documents provide expectations that guide the implementation and oversight of the *Agreement*, but also provide a framework for DL school planning and Quality Review activities.

Quality Review

The Ministry of Education created a Quality Review process for DL schools that incorporates participation, engagement, student success, and satisfaction. The model draws upon a community of inquiry framework (Garrison, Anderson, & Archer, 2000) and formative evaluation principles:

Ideally, formative evaluations are developed as partnerships that give all stakeholders a hand in planning and helping conduct the evaluation. Explicitly framing a formative evaluation as a collaboration among stakeholders can help in more ways than one. Practitioners are more likely to cooperate with and welcome evaluators rather than feel wary or threatened—a common reaction. In addition, practitioners who are invited to be partners in an evaluation are more likely to feel invested in its results and to implement the findings and recommendations. (WestEd & United States, 2008, p. 9)

The process begins with a DL school's internal review. Documentation supporting the internal review is based on the BC Distributed Learning Standards, research and growing descriptions of emerging practice in DL. All schools are involved in a school planning process, and the internal review is intended to complement the planning process for DL schools. The Ministry has created a guide (http://bit.ly/aaN3oY) to support schools with their internal review.
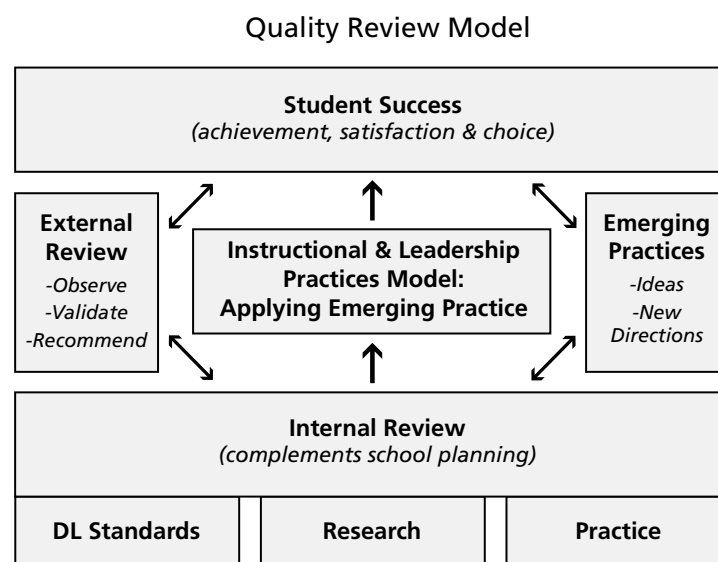
Quality Review Model

Figure 1. Overview of the quality review model

Each year, several DL schools are selected for an external review. Using primarily qualitative methodologies, a small team visits the school to validate the internal review, observe instructional and leadership practices, and provide recommendations to enhance programme quality. The review team leader prepares a report with specific input from the DL school principal. The report serves as a template for specific actions within the school, but also identifies promising or exemplary practices that can be shared with other DL schools. After several months, the Ministry of Education asks the school to provide a status report on the external team's recommendations.

Achievement Data

The Ministry of Education operates a data warehouse that contains longitudinal student enrolment and achievement information. Prior to 2006, however, the achievement information included only standardised test results and final grades associated with secondary school graduation credentials. Beginning with DL in 2006, the Ministry is now collecting course-level data. On a quarterly basis, for each student in each course, schools provide the Ministry with enrolment date, completion date, and final marks. For now, the data is shared only with the schools to assist them in planning and improvement processes, but the information is also helping the Ministry create a knowledge base that will shape future discussions with schools about their instructional programmes and implications for their *Agreements*. Neighbourhood school data was added to the process in the 2008-09 school year, so we will soon be able to respond to questions about comparisons between classroom and online instruction. The various data warehouse tables include the Personal Education Number assigned to each student, creating additional analysis opportunities connected to demographic, prior achievement, and location data. Over the next few months, the Ministry of Education will be using this data to revise other quality processes, but more importantly, to engage schools in focused and deliberative discussions about their achievement results.

Satisfaction Survey

All BC schools are required to participate in an annual satisfaction survey that gathers opinions from students, parents and school staff on achievement, human and social development, and safety. The normal survey is intended to provide a source of information to identify current strengths, as well as to determine where schools may need to focus improvement. However, the standard school survey assumes classroom-based instruction in a school that is providing a student's entire programme. In 2009, the Ministry implemented an online satisfaction survey that combined a few key questions from the standard surveys with additional questions based on the *Distributed Learning Standards*. Individual DL school principals can add their own questions and see their own data.

Distributed Learning Audit

The Ministry of Education's Finance and Compliance Unit operates audit programmes for the various public schools in the province. Legislation, specific programme policies, and important procedural instructions are organised into published criteria designed:

- to provide assurance to the ministry and school boards that ministry policy is being followed;
- to promote compliance with ministry funding directives; and
- to support the accurate allocation of education funds based on the funding formula.

Audit results may lead to funding adjustments and to special temporary provisions in the DL *Agreement.*

During an audit, an external team spends several days at school and Board of Education facilities reviewing enrolment records and supporting evidence. The audit criteria are reviewed regularly, published on the Ministry of Education website (http://www.bced.gov.bc.ca/compliance/), and distributed directly to DL schools. For distributed learning, the audit teams ensure that:

- student enrolments meet eligibility guidelines;
- teachers are certified;
- teachers are supervising the educational programme; and
- schools are following policies for approved learning resources.

All of the elements described above provide the BC school system with a quality improvement toolkit for its public distributed learning schools. With these tools, we believe that quality is improving but unevenly distributed between and among DL schools. However, the same tools are becoming increasingly precise in showing where the extremes in variation are occurring, providing insights into emerging and effective practice, and illuminating weak programmes that require attention.
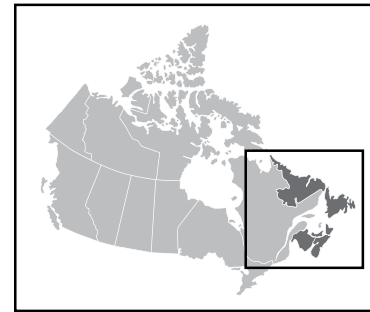
National Overview

At present, there is some level of K-12 distance education in all thirteen provinces and territories. The highest level of activity appears to be in British Columbia, which also has the most comprehensive legislative and regulatory regime. The only province that does not have its own K-12 distance education programme is Prince Edward Island, which relies upon programmes from other jurisdictions (similar to the three northern territories). The only jurisdictions that continue to maintain single province-wide systems are Newfoundland and Labrador and New Brunswick. Finally other trends include a high level of district-based cooperation in the Provinces of Ontario and Saskatchewan. The total K-12 student population in Canada for 2009-10 was just over 5.2 million. Based on actual and projected enrolment data, the estimated number of student engaged in K-12 distance education was between 150,00 and 175,000.

Legend:
- Single provincial programme
- Primarily district-based programmes
- Combination of provincial and district-based programmes
- Use online learning programmes from other provinces

Atlantic Canada

Atlantic Canada is the smallest geographic region of Canada, with all four provinces being the smallest in the country. Atlantic Canada is also the only region where there are still strong provincial programmes—with New Brunswick and Newfoundland and Labrador having only a province-wide programme, Nova Scotia having a high level of cooperation between the province-wide initiatives and the individual district-based programmes, and Prince Edward Island having an underutilised province-wide video conferencing programme. As the province-wide initiatives in these provinces are managed directly by the individual Ministries of Education, there is little legislative oversight in place to govern K-12 distance education. However, three of these four provinces have substantial regulatory regimes in place (with Newfoundland and Labrador being the only province without significant public regulation established).

Newfoundland and Labrador

Population – 508,990
Total Area – 405,212 km^2
Population Density – 1.26 people/km^2
Capital (Population) – St. John's (100,646)
Number of K-12 Schools – 279 (2009-10)
Number of K-12 Students – 69,665 (2009-10)

Geographically speaking, Canada's most easterly province—Newfoundland and Labrador—is composed of two landmasses: the island of Newfoundland and the mainland portion of Labrador. While only 20% of the population lives in the capital, approximately 60% of the population of the province resides within a 90-minute drive of the capital.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	
Other online programmes	No	
Provincial-level policy	No	

Online Programmes

K-12 distance education was introduced to the Province of Newfoundland and Labrador in 1988-89, with the delivery of a single advanced mathematics course using a telematics or audiographics delivery system. The initial course had an enrolment of 36 students from 13 rural schools (Barbour, 2005). By 1999-2000, this province-wide programme offered 11 courses to 703 students in 77 different rural schools, with an enrolment of 898 (Brown, Sheppard, & Stevens, 2000). This programme began to be phased out in 2000-01 when the Centre for Distance Learning and Innovation (CDLI) came into existence—based on the recommendation of a ministerial panel (Sparkes & Williams, 2000). The CDLI began its curricular offerings 2001-02, with 10 courses field-tested in 10 districts (i.e., one course per district) and a total of 200 student enrolments from 76 different rural schools. After the initial field test, the CDLI expanded its course offerings so that students from all over the province could access any course. Over the past nine years, the CDLI has increased its offerings to approximately 38 courses. Since 2005-06 they have had an annual enrolment of approximately 1,500 students from around 100 different schools (e.g., 2007-08 – 1,787; 2008-09 – 1,616; 2009-10 – 1,481).

The CDLI utilises a combination of synchronous and asynchronous instruction for each of their online courses. For the synchronous instruction, the CDLI has teachers that provide, depending on the subject area, anywhere from 30% to 80% of the students' scheduled time (which is 10-one hour

periods over a fourteen day cycle) in synchronous instruction using *Elluminate®*. Participating schools must align their schedules with the specific CDLI schedule for their region to ensure that students' class time in their brick-and-mortar schools matches with the CDLI's synchronous class times. The asynchronous instruction is conducted using a course management system (*Desire2Learn®*).[3]

In addition to their high school offerings, the CDLI has ventured into providing online instructional support to the lower grades. For example, Murphy (2009) described a project where the CDLI provided a blended learning environment for four grade six French-language teachers located in one urban and three rural schools. The blended learning environment allowed the teachers to pool their resources while students completed classroom-based, along with synchronous and asynchronous lessons online.

Finally, the CDLI continues to be the most researched K-12 distance education entity in Canada. The CDLI has been one of the main research partners for the Killick Centre at Memorial University of Newfoundland, which has released a series of research studies as a part of their federal grant. In addition, independent researchers have consistently investigated the programme since it's inception (e.g., Barbour, 2007b, 2008; Barbour & Cooze, 2004; Barbour & Mulcahy, 2004, 2008, 2009; Cooze & Barbour, 2005; Mulcahy, 2002; Mulcahy, Dibbon & Norberg, 2008).

Governance and Regulation

At present, the CDLI is not a separate school or entity. Rather it operates within the Planning and Educational Programmes Branch of the Ministry of Education. It receives a block grant from the provincial Government that funds the administration, overhead and course development activities of the online programme. One of the items included in the CDLI overhead is the placement and maintenance of computers and other support equipment that the CDLI provides to all of the schools that participate in its programme. The CDLI also receives a direct allocation of teaching units from the provincial Government to hire teachers for their online courses.

At this time there is no language in the *Education Act* related to K-12 distance education. There are also no policies or regulation specifically related to K-12 distance education within the Ministry of Education, although in response to the 2009 report the CDLI did indicate that work was being done in this area (although there is no evidence that this work has been completed or made public at this stage).

The Ministry of Education continues to track the method of delivery that students complete their studies. This allows for comparisons of student performance between the students who take their courses via distance education and those enroled in the face-to-face environment (e.g., Crocker, 2009). Data related to distance education enrolment are available through the *K-12 School Profile System*, while data on student performance are available from the Ministry upon request.

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3   Barbour (2007a) provides an extensive description of the Province of Newfoundland and Labrador and its rural nature, along with a history of the development distance education, and a detailed description of the Centre for Distance Learning and Innovation and its delivery model.

Lumsden School Complex was a rural all grade school with a student body of approximately 120 students and a teaching staff of 15. The students at Lumsden School Complex came from Lumsden, Cape Freels and Deadman's Bay (approximately 15 kilometres north and south). The three communities combined have a population of approximately 950.

Because of the small enrolment this rural school has always been involved with K-12 distance education in the province of Newfoundland and Labrador. In fact, the school was one of the eleven schools involved in the original audiographic pilot of Advanced Mathematics 1201 in 1988-89. The school participated in each distance education programme the province made available, including becoming involved with the Centre for Distance Learning and Innovation (CDLI) in 2000-01 when it was first piloted.

Due to the school's long-standing involvement with distance education, former principal Andy Gibbons explains that "the biggest problem that we had years ago was with the equipment; it wasn't with the courses or the content. We had so many break downs and so much time that students lost that they were behind a lot and they used to have to try and catch up. But lately the problems with the equipment are almost non-existent."

Lumsden School Complex had an established distance education room (approximately 5 meters from the school's main office) for students to complete their online studies. The equipment, which included nine computer workstations, audio headsets, an all-in-one printer and a video-conferencing equipped television—all provided by the CDLI, along with technology and curricular resources that had been collected over the years.

Students engage in their online courses in this distance education room, supervised only by an occasional visit from the school's administrator or one of the school's teachers. "I usually drop into the CDLI class two or three times a day when they are online, just to make sure that they are there and to see if they have any problems, to ensure the equipment is working, or to let the students know if there's a test coming up. The instructors usually email me and ask if there's any problem with assigning a test for a certain date and I check with the students. If it is no problem, I e-mail the instructors back," states Gibbons.

It was apparent the staff of this small rural school was invested in supporting the students engaged in the distance education programme. As Gibbons describes, "That's the only way it can work; everybody's got to be aware that these students are a part of the school and the CDLI is part of the school—it's not something separate from the school. I think this is probably one of the reasons that this school is still here."

However, even with their extensive use of distance education, in 2006-07 the students in the high school grades were removed from the school and those students began to be bussed to another school located approximately 40 km away. Lumsden Academy is now a K-9 school.

Nova Scotia

Population – 939,531
Total Area – 55,283 km^2
Population Density – 16.99 people/km^2
Capital (Population) – Halifax (372,679)
Number of K-12 Schools – 102 (2008-09)
Number of K-12 Students – 133,134 (2008-09)

Nova Scotia is one of the four original provinces that formed Canada and has the second highest population density in Canada, approximately 40% of the province's population living in the capital region.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	
Other online programmes	Yes	
Provincial-level policy	No	Included in the Provincial Teachers' Agreement

Online Programmes

Currently, there is a single province-wide online learning programme operated by the Government of Nova Scotia—the Nova Scotia Virtual School (NSVS). The NSVS is responsible for providing central course management platforms, while the eight school boards in the province are responsible for providing the individual course content and the teachers who teach those courses. Two of these school boards have created their own district-based online programmes (i.e., Strait Regional School Board Virtual School and Chignecto-Central Virtual School), although students from any of the school boards are able to enrol in courses offered by these two board-based programmes. A third school board, the Conseil scolaire acadien provincial (CSAP)—the pan-provincial school board for French first language students, actually has the longest history with K-12 online learning in the province. CSAP uses both room-based video conferencing and the two online platforms used by English school boards. CSAP also has a sharing arrangement for online programming from the Province of New Brunswick. Over the past three years there have been approximately 650 students per year enroled in the NSVS from the eight English-speaking school boards and the CSAP. Students enroled in courses from the NSVS are usually also enroled in a brick-and-mortar school.

There is also a correspondence study programme (CSP) that began in 1920 and continues to this day—although the Department of Education is currently in the process of transitioning these courses to an online delivery format. At present there are approximately 1800 students and 2200 course enrolments in CSP. Approximately half the students enroled in CSP courses are also attending a public school; the other half are adult students or live outside of the province.

Governance and Regulation

Learning Resources and Technology Services, a Division of the Public Schools Branch of the Department of Education, manages the distance education programmes in Nova Scotia. The delivery of CSP courses is mostly self-funded from tuition fees, however, these fees are often paid for by school boards, Department of Community Services, Department of Justice, Nova Scotia School for Adult Learning, or other sources (as opposed to the students themselves). For the NSVS, the Department funds the online learning platforms (i.e., *Marratech*® and *Moodle*®). The individual student enrolment fees are typically provided as regular programme seats and are funded from the per student allocation attributed to each school board. In addition, the Department provides additional funding for 200 seats in online courses with a priority on students from small high schools.

There is currently no legislation specifically related to K-12 distance education in Nova Scotia, however, there are 11 provisions included in the agreement between the Government of Nova Scotia and the Nova Scotia Teachers Union. As a contract between the Government and teachers' union, most of the provisions deal with teacher certification and workload issues. For example, all distance education teachers must have provincial certification and be employed by one of the eight school districts (49.01), must not infringe upon the teachers' "marking and preparation time, lunch periods, days pursuant to Article 25.05 [i.e., professional development, assessment, preparation, and personal days], School Year, or other such times provided to classroom teachers in the school" (49.02), and must be scheduled during the school day (49.08).

The agreement states that the school board is responsible for ensuring that there is a plan in place for student supervision, and that schools must appoint a distance education coordinator and that these responsibilities shall be included as a part of that teacher's overall teaching assignment (although without outlining the specific responsibilities of this coordinator), or the principal must assume these duties (49.03). The coordinator is responsible for ensuring that students have a physical space to complete their distance education courses, supervision and submission of assessments and assignments, maintenance of student records, communication with the distance education teachers, and tutoring (49.04).

There are provisions that limit the size of synchronous classes to a maximum size of 22 or 25 students from up to five different school sites. If new technologies are to be used, those involved in the distance education programme are required to meet to discuss updated maximum number of students and schools, along with other delivery issues (49.06). School boards are required to provide on-going professional development in distance education for all of those involved in the distance education programme (49.07).

Lastly, the two final provisions relate to the creation of a "standing Distance Education Committee consisting of two representatives from the Department of Education, two representatives from the Nova Scotia School Boards' Association and four representatives from the Union… to address issues surrounding distance education" that meets at least twice a year and provides annual written reports" (p. 100).

Prince Edward Island

Population – 140,402
Total Area – 5,684 km^2
Population Density – 24.7 people/km^2
Capital (Population) – Charlottetown (58,625)
Number of K-12 Schools – 64 (2007-08)
Number of K-12 Students – 20,813 (2007-08)

Prince Edward Island is the smallest province in Canada, joined to the mainland portion of the country by the Confederation Bridge (a 13 km long span from Borden-Carleton, Prince Edward Island to Cape Jourimain, New Brunswick).

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	Video conferencing
Other online programmes	Yes	Programmes from other provinces
Provincial-level policy	Yes	

Online Programmes

Prince Edward Island does have a video conferencing system that is available for use for distance education, although it appears that this system receives little use for this purpose. In addition to the provincial video conferencing system, students in Prince Edward Island have the ability to access some online courses offered by the New Brunswick Ministry of Education. During the 2009-10 school year there were 11 French-language students and 23 English-language students enroled in eight online courses.

Governance and Regulation

There is no mention of distance education in the provincial *Schools Act*. However, in 2001 the Ministry of Education issued Ministerial Directive No. MD 2001-05 establishing guidelines for the use of distance education within the K-12 system. These provisions were superceded in August 2008 by Ministerial Directive No. MD 2008-05, which applies only to courses delivered during the regular school day, broadly defines distance education, and outlines a series of beliefs about the nature of distance education instruction. For example, personal interaction between teachers and students is fundamental to the teaching and learning process, that teacher education programmes should include instruction in distance education policies, programmes, and instructional strategies. Additionally, it states that teachers must be Canadian certified, students must be supervised at their local school while engaged in distance education, and distance education and supervisory teachers should have those duties considered as part of their regular load.

New Brunswick

Population – 748,319
Total Area – 72,908 km^2
Population Density – 10.26 people/km^2
Capital (Population) – Fredericton (50,535)
Number of K-12 Schools – 322 (2009-10)
Number of K-12 Students – 106,394 (2009-10)

New Brunswick is the only officially bilingual province in Canada, with approximately a third of the population of Francophone descent. The province's three urban areas are responsible for approximately 45% of the population.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	One English / One French
Other online programmes	No	
Provincial-level policy	Yes	Policy documents

Online Programmes

There are two online learning programmes in New Brunswick, one for the Anglophone school system and one for the Francophone school system, both of which use the same Ministry hosted learning management system (LMS). The majority of distance education enrolments in the province are from supplemental students. Enrolments in the English online learning programme continued a downward trend in 2009-10, with only 1,677 students enroling in one or more courses (compared with 2,010 in 2008-09 and 2,911 in 2007-08). The Ministry also allows classroom teachers to use online courses with their face-to-face students. The number of students involved with this option also decreased in 2009-10, with only 1,575 enrolments in the provincial LMS (compared to 1,933 in 2008-09 and 1,763 in 2007-08).

The number of students enroled in the Francophone distance education programme was 328 in 2009-10 (down from 701 in 2008-09 and 708 in 2007-08). This decline was largely due to the fact that the Ministry had to reduce the number of distance education courses offered because of the financial context.

Governance and Regulation

There remains no specific legislation that governs K-12 distance education in New Brunswick, and the system continues to operate based on collaboration between the Ministry of Education and individual school districts, and a Ministry published policy handbook.

Belleisle Regional High School (BRHS) is situated in scenic Springfield, Kings County. BRHS is a combined middle and high school serving students ranging from grade 6 to 12 in both English and French Immersion programmes. There are 35 teachers and teacher assistants that strive to meet the needs of our students. Our course offerings are diverse and provide our approximately 310 students with a diverse experience in Language Arts, Math, Science, Humanities, to the Fine Arts and a rich experiential skills-based Technology Education programme that includes the trades and computer-based online courses. Thanks to local business and agency support, students can take advantage of a Cooperative Education work experience in their grade 12 year. Grade 6-8 students have a true middle school experience that is holistic and active.

One aspect that has been particularly beneficial is the role online learning plays in the rural community, where school funding isn't always a priority. As an administrator at a rural school for the past four years, it is clear that we would be lacking in the diversity of courses and opportunities for our students if online course delivery was not available. With limited selection of classroom-based programmes, distance education has filled many of those gaps and it has been vital that the New Brunswick Ministry of Education maintains a vision that includes online learning for our students.

Local facilitators work in conjunction with the distance education teachers in monitoring student progress and delivering curriculum and technical support. The distance teacher can communicate with the students via texting and voice. If required, the distance teacher can use whiteboard technology to demonstrate concepts and testing. Assessment tracking is enhanced where the distance teacher checks in with the local facilitator in maintaining control of student progress. Although these students are kept accountable for their work completion, those students who are not strong independent workers may not keep up. Online programmes are designed and packaged for strong curriculum alignment, but they are not always accommodating for those who are not strong readers or require ongoing assistance. Nevertheless, their delivery makes for some dynamic learning outside the traditional classroom.

Online learning has contributed to the academic life of our rural school community. The variety of courses available online provides options that simply don't exist without the distance education programme. It's a level of experiential learning in areas like Hospitality and Tourism, Nutrition and Healthy Living, and Digital Technologies. These courses bring to the student a focus on alternative programmes, as opposed to the more traditional academic ones. As half of our students generally enter the trades or other programmes at community or technical college, experiential learning must be provided and online programmes contribute to this endeavour.

Central Canada

Central Canada is the most populated region of Canada. In fact, Ontario and Quebec comprise almost two thirds of the population of Canada or approximately 20 million people or approximately 60% of the country's population (and only about a quarter of the area of the country). The vast majority of those people, around 17 million, live in the Quebec City to Windsor Corridor—a 1,200 km corridor running along the southern portions of both provinces that connects two ends of one of the main routes of the Via Rail passenger service. The corridor is the most densely-populated and heavily-industrialised region of Canada. The remainder of both provinces—or the northern portions—are less populated and face many of the educational challenges one would expect in rural areas.

While both Ontario and Quebec have primarily district-based K-12 distance education programmes, their development to that stage was very different. In Ontario there had been a historic association of K-12 distance education, and particularly K-12 online learning, to the district level and it has only been recently that the Ministry has begun to play a more active role. However, in Quebec K-12 distance education had historically been based at the Ministry, and it is only in the past decade and a half that it has been devolved to the district level. Although the main distance education providers are still province-wide in scope.

Quebec

Population – 7,782,561
Total Area – 1,542,056 km^2
Population Density – 5.63 people/km^2
Capital (Population) – Quebec City (715,515)
Number of K-12 Schools – 2850 plus 48 CEGEPs (2005-06)
Number of K-12 Students – 1,052,960 plus 157,748 in CEGEPs (2005-06)

The second largest province in Canada—both in terms of size and population, Quebec is the only French-speaking province in Canada. At present, approximately 80% of the population report French to be their first language. Quebec is also home to Canada's second largest city, Montreal, which has a population of 3,814,738. Unlike the other provinces, secondary school in Quebec is from grade 7 to 11, after which students typically attend a two or three year *Collège d'enseignement général et professionnel* (CEGEP) to receive a Diploma of College Studies.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	No	All three distance education programmes are provincial in scope
Other online programmes	Yes	
Provincial-level policy	No	

Online Programmes

The first distance education programme in Quebec was a correspondence school for vocational education in 1946. This programme was expanded several times, and when the responsibility for distance education was devolved from the Ministry to the school boards a joint effort between these two groups led to the creation of the *Société de formation à distance des commissions scolaires du Québec* (SOFAD) in April 1996. SOFAD is a not-for-profit organisation tasked with the development and production of distance-learning materials, that school boards utilise in their own district-based programmes for adult students (i.e., students who have reached the age of 16 before July 1 of the current school year). At present, there are:

- 40 school boards or consortia that offer only French-language distance education;
- 3 school boards that offers only English-language distance education; and
- 1 school board and 1 consortium that offer both French-language and English-language distance education.

These school boards and consortia operate a total of 57 centres with a total of 45,264 enrolments from 23,577 students in 2008-09; up from 38,450 enrolments in 2007-08, 37,217 enrolments in 2006-07, and 30,038 enrolments in 2005-06. A decade earlier, there were only 10,910 enrolments in programmes using SOFAD courses (Saucier, 2009).

In 1999-2000, three English-speaking school boards in Quebec initiated the Distance Education and Community Network. This distance education programme grew to include all nine English-speaking school boards and became Learn Quebec in 2006. Learn Quebec provides a variety of resources to any English-language students throughout the province. These resources include asynchronous course content tutorials, live tutors available four evenings each week, online professional development for teachers, and a synchronous distance education programme that uses *Wimba* as a synchronous tool and *SAKAI* as a learning management system. Learn Quebec reported approximately 300 students enroled in their synchronous distance education programme for 2009-10 (although they have over 4,000 students who use their asynchronous tutorials).

As described earlier by Thérèse Laferrière in the Brief Issue Paper section, the Quebec Ministry of Education funded the *Écoles éloignées en réseau* or Remote Networked Schools (RNS) initiative in 2002. Administered by the Centre francophone *d'informatisation des organisations* (CEFRIO), one of the aims of the RNS initiative is to enhance the learning environments of small rural schools by transforming them into blended learning environments. Laferrière et al. (2004) described that:

> "distance education has until now focused, above all, on an operating method with two features: the students are linked to teachers in a centre far from them and the teachers produce material to support independent learning on the part of students. The approach adopted by this pilot project is different in that it does not seek to compensate for the absence or closing of a school by allowing students to engage in distance education. Instead, it seeks to bolster the ability to intervene of existing schools by networking them with other schools and resources. In this project, the classroom and the school are inhabited by students and teachers. By networking certain of their learning activities, we wish to broaden the ability of students and teachers to achieve significant, quality learning." (p. 10)

At present, there are more than twenty Francophone school boards representing approximately 70 schools and 90 teachers involved in the RNS initiative. The use of the initiative to connect schools where one school has a teacher with a background in a highly specialised area (e.g., chemistry or physics) to collaborate with a teacher in a rural school that is assigned to teach that course but is not trained in that area does not happen. While this was a goal for the initiative during its early years, issues such as organisational structure in the school system and the professional culture not being collaborative-oriented, have prevented this from occurring; although it is something that the project leaders are still open to exploring.

Governance and Regulation

The *Education Act* in Quebec makes no reference to distance education. As the school boards have held the primary responsibility for distance education since 1995, policies and regulations related to K-12 distance education also appear to be at the district level.

In 1999 an e-learning project was initiated to offer quality educational services to small schools in English-language Boards throughout the Province of Quebec. Even though online learning was very popular in the eastern and western provinces, it was practically unheard of in the province of Quebec—even at the post secondary level. Most recognised online learning programmes utilise an asynchronous delivery mode, which raised concerns since research indicated that unless a student was an independent learner they were usually unsuccessful. A focus on secondary students, along with political issues and the lack of qualified online teachers for the Quebec education programme, forced the project organisers to look for an innovative online alternative that was familiar to a "brick and mortar school". The team focused on a synchronous model with asynchronous support to deliver primarily mathematics and science courses.

Learn Quebec has evolved somewhat since the initial project, but it has retained both its focus on math and science, and its synchronous model consisting of a multi-point synchronous VOIP system with white board applications. Because of the platform's ability with low bandwidth, it is ideal for the restrictive connectivity issues encountered by many of the receiver schools. The addition of an open source learning management system (i.e., SAKAI) has provided supplementary communication tools that enhance interaction outside of the classroom and permit the transmission of documents between students and teachers. This enhanced model is also being used for evening homework tutorials (i SOS Learn), which were made available to all English students across Quebec. All resources produced for online classes have also been uploaded to a provincial LMS, making the archived material accessible to all educators and students.

Online teachers are experienced regular classroom instructors, who receive ongoing online professional development. The use of constructivist's techniques, which incorporates best practices, encourages students to become independent learners. For example, the use of the screen grab and direct web access in the platform bring current material directly to the student. Math teachers, such as Audrey McGoldrick and Peggy Drolet, combine synchronous guidance with asynchronous activities and research to work through math problems online and during independent work periods. Whiteboard tools are used to engage the learner to solve these problems and work with classmates. Science teachers, such as Andy Ross, Kerry Cule and Tamara Vaughan, use video to demonstrate labs and, in turn, have students demonstrate their work to other learners. Through these different activities, these online teachers encourage students to learn but also become knowledge providers as they work in peer sessions and share their discoveries with their classmates and their instructors.

In 2009 a research study was presented to the Quebec Ministry of Education that examined student performance from the previous nine years. The results indicated that online students' performance was comparable and, in many instances, better than the provincial levels and scores.

	Ontario
	Population – 12,986,857
	Total Area – 1,076,395 km^2
	Population Density – 12.07 people/km^2
	Capital (Population) – Toronto (2,503,281)
	Number of K-12 Schools – 4935 (2008-09)
	Number of K-12 Students – 2,070,736 (2008-09)

Ontario is the most populated and most densely populated province in Canada. The Golden Horseshoe has a population of 8,102,163, while the National Capital region has another 1,451,415 people. Excluding these regions, the population density falls to only 3.3 people/km^2.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	No	
Other online programmes	Yes	Both public and private
Provincial-level policy	Yes	

Online Programmes

Ontario was one of the first provinces in Canada to establish district-based online learning programmes—with the Avon Maitland Distance Education Centre being the first programme in Ontario in 1994-95. Since that time many of the school boards in the province have established their own programmes, and 20 of these school boards have come together to form the Ontario eLearning Consortium (OeLC). OeLC is designed to allow its school board members to work together to maximise their online offerings by sharing course offerings, resources and students. During the 2009-10 school year, the OeLC had 9,695 enrolments (up from 6,276 in 2008-09).

While the OeLC has three Catholic school boards as members, recently the Catholic school boards have also created their own Ontario Catholic eLearning Consortium (OCeLC). The purpose of this second organisation "is to provide equity of access for Catholic secondary students to take [online] secondary credits developed and taught by Catholic teachers." The OCeLC does have an agreement to share students, however, they do not waive the required course fee like the OeLC does.

Finally, since 2001 the 12 French-language school boards in the province have also cooperated to offer distance education to their students through the *Consortium d'apprentissage virtuel de langue française de l'Ontario.* The Consortium, which falls under the same regulations as the two English-language programmes, utilises a primarily asynchronous delivery model. However, the school boards have made the decision that those assigned to teach online do so in a full-time capacity, meaning that students are able to contact their teacher via a 1-800 number or using synchronous tools at any

time during the school day. The Consortium reported almost 1300 successful completions during the 2009-10 school year, with only a 4% failure rate.

The total enrolments in the provincial LMS for 2009-10 were 24,333 students. This does not include students engaged in online or blended learning offered by school boards through their own LMSes. In addition to the public school offerings, there are three private K-12 online learning programmes: Virtual High School (Ontario), Ottawa Carleton e-School and Keewaytinook Internet High School. At present, there are over 4,700 students enroled in private online schools in the province (i.e., VHS(O) – 3143; OCeS – 1340; KiHS – 220).

Governance and Regulation

There is no mention of distance education or online learning in the *Education Act* in Ontario. However, the Ministry of Education conducted a survey of existing distance education courses in 2004 and consolidated content into a single learning management system (LMS) maintained by the province in 2005-06. During the course development process, the Ministry created a standardised model and each lesson had two sets of evaluations: one for online delivery and one for face-to-face delivery. The online courses are housed in the provincial LMS, while the face-to-face version is made available through the Ontario Education Resource Bank to any teacher, student, or parent of a participating board.

In 2006, the Ministry released an *E-Learning Strategy*, which school boards are required to follow if they wanted to access the free curriculum and technical support provided by the Ministry. The *E-Learning Strategy* includes a policy document outlining specific requirements for the individual school boards in three areas: policies for board delivery of e-learning programmes under the Service Level Agreement, acceptable use policies, and conditions of use policies. The *E-Learning Strategy*, along with the accompanying policy document and Service Level Agreement, describes the responsibilities and restrictions placed on school boards. The responsibilities for the Ministry, school boards, individual schools, and online teachers primarily describe who is supposed to provide what services and how those services should be provided. In some instances the Ministry requirements are quite restrictive (e.g., the provincial LMS cannot be used for blended learning or professional development). Many school boards have chosen to use the provincial LMS and also maintain their own LMS for these other purposes.

School boards that agree to follow these policies are permitted to use this content and the LMS free of charge with their own students. However, unless a prior agreement has been made (e.g., the OeLC members), they are required to charge a fee of $640 to students from other school boards who enrol in their courses.

Finally, at their 2010 annual meeting, the Ontario Secondary School Teachers' Federation (one of the four main unions representing teachers in the province) adopted a policy regarding distance education stating, among other things, that they believe that "the Ministry of Education should ensure that all students in publicly-funded schools should have equal access to online credit courses, including but not limited to covering the cost of online credit courses for low-income students and making available computers, modems and Internet access" (p. 29).

Ottawa Carleton e-School enables students to study online in more than 50 high school courses online. With flexible start dates, students can register for courses on a continuous basis throughout the year. This flexibility enables them to study courses that may not currently be available to them in the traditional classroom, and to work at their own pace and schedule. All of the high school credits earned at e-School count toward the Ontario Secondary School Diploma in the same way as a credit earned in a traditional classroom. Some students use our courses to get ahead, others to make-up a course, and some to get a course otherwise not available to them.

e-School courses also fill a need for students who cannot attend classes in a traditional high school setting. Whether it is due to physical or psychological barriers, the pursuit of athletics, an early career in the arts, or simply the choice to homeschool, students find e-School courses offer them the flexibility they need. One of the principals of e-School, Annette Levesque explains that parents and the school "ensure that the student will have adequate support throughout their course. Online learning offers a valuable alternative learning opportunity for students; the ability to self pace through their course, learn one concept before moving on to the next, and the ability to choose the hour of the day that is most conducive to effective learning for the student. However it is important to recognise that the greater the individual needs of a student (academic or physiological/psychological), the greater the student support that is required in order to ensure that student experiences academic success."

Sometimes, working at one's own pace means slowing down to fully understand a concept before moving on to the next area of study. "The biggest benefit from eLearning is the flexibility that students receive. They are able

to work at their own pace and spend more time on concepts that they are having more difficulty with prior to continuing to the next cumulative unit of study. Having a solid understanding of each concept as it presented, increases the chances of student success as the curriculum progresses in difficulty. "E-learning is convenient. It fits my scheduling needs. I can learn at my own pace," said Nicholas Harris. Harris is among one of more than 6,000 students who have earned credits through Ottawa Carleton e-School since its inception.

"Students are preparing themselves to work in an environment which is rapidly expanding into everyday living. Students will complete their e-School course aware of their abilities to organise, plan and effectively implement personalised learning in the online environment. A skill that is going to be key going into their post-secondary education or even directly into the workforce," concluded Levesque.

Western Canada
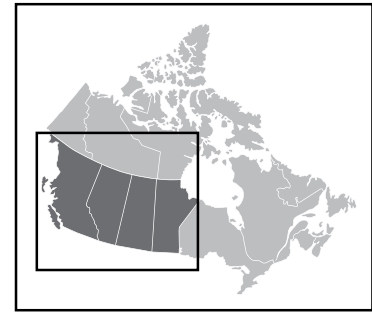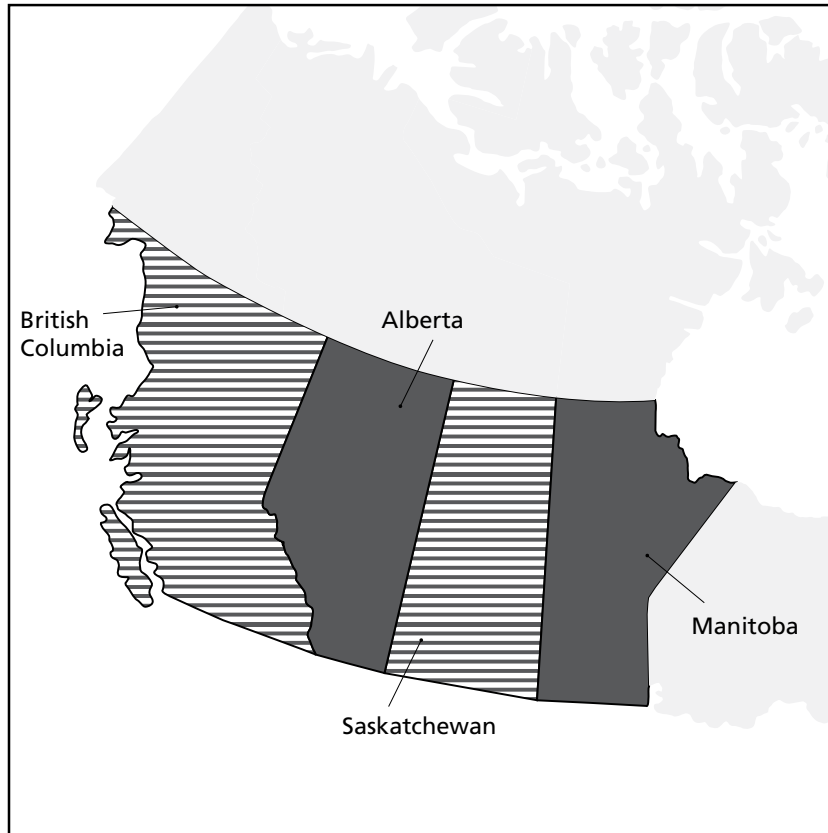
The Western Canada region has the second highest population of any region, with larger cities such as Vancouver, Victoria, Calgary, Edmonton, Saskatoon, Regina, and Winnipeg. However, the non-urban areas of each of these provinces—particularly the northern portions—face the same geographic challenges that you would expect in any jurisdiction with a low population density. In the past, all four provinces in Western Canada have had strong centralised K-12 distance education initiatives. British Columbia was the first to move to a more decentralised approach, followed by Saskatchewan in the past year. While Alberta and Manitoba still have active province-wide K-12 distance education programmes, both provinces have significant district-based activity. In Alberta's case this has been through the creation of competing district-based programmes, while in Manitoba the provincial initiatives are administered at the district level.

The Western Canadian provinces have also been the most active in establishing legislative and regulatory regimes to govern K-12 distance education. British Columbia has led the way in this area, with the longest established and most comprehensive system to manage K-12 distance education. Both Manitoba and Alberta are currently engaged in a consultation process designed to establish new policies to govern K-12 distance education in their jurisdictions.

	Manitoba
	Manitoba Population – 1,213,815 Total Area – 649,950 km^2 Population Density – 1.87 people/km^2 Capital (Population) – Winnipeg (633,451) Number of K-12 Schools – 686 (2009-10) Number of K-12 Students – 196,073 (2009-10)

Manitoba is one of three Prairie Provinces (all of which are roughly the same geographic size). The capital region contains over 60% of the provincial population, with a population density of 131 people/km^2. The remainder of the province has a density of only 1.24 people/km².

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	
Other online programmes	Yes	Uses province learning management system and course content
Provincial-level policy	Yes	Currently under review

Online Programmes

In Manitoba, distance learners continue to be supported with three options: Independent Study Option (ISO), which is print-based delivery; Teacher Mediated Option (TMO), which utilises audio conferencing; and Web-Based Course (WBC) Option or online delivery.

The Ministry of Education, or Manitoba Education is directly responsible for the ISO and TMO distance education options. The ISO provides school-age and adult learners access to print-based distance learning courses from grades 9 to 12. Learners complete courses independently at their own pace and have access to a tutor/marker via e-mail and telephone, with some beginning to utilise web conferencing tools, such as *Elluminate*®. The operation of ISO is funded by Manitoba Education; however students pay a registration fee for a course.

The TMO provides school-age and adult learners access to print-based distance learning courses supplemented with audio teleconference classes hosted by an instructor at scheduled times during the school day. TMO courses are available to grades 9 through 12 students attending a school or an adult learning centre. It should be noted that Manitoba Education is currently experimenting with using the province's learning management system (LMS) and web-based synchronous tools in the TMO delivery model. The TMO is self-funded, where one host school division collects and holds student registration fees from other schools/school divisions, which are then used to pay instructors. Participating schools and school divisions use funds from their per-pupil block grant/direct allocation

to pay the registration fee for TMO courses. Manitoba Education is responsible for the course development, and the administration and implementation of the TMO programme including the recruitment of 10 instructors.

In a model similar to the one found in Ontario, the WBC Option provides schools and teachers access to the courses developed by Manitoba Education, along with use of the provincial LMS, to manage their own online or blended learning programmes. The WBC option operates with Manitoba Education taking responsibility for course development, teacher training and support, as well as costs of running and supporting the learning management system required for development and implementation. Schools are responsible for implementing WBCs and therefore costs related to implementation (i.e., hiring or allocation of teachers), are covered through the regular per-pupil block funding from the province.

Finally, where demand exists and resources permit, the *Bureau de l'éducation française* (a division of Manitoba Education) has developed ISO and WBC courses for students registered in the *Français* and French Immersion programmes. This offer of distance learning courses in French is occasionally augmented by courses that may be required by students but are not available in French in Manitoba. In this case, students will be registered in courses offered by another Canadian jurisdiction. However, since no policy exists regarding access to out-of-province courses, each case is looked at individually.

Manitoba Education maintains enrolment figures for all three options. In the 2009-10 school year there were approximately 3400 enrolments for ISO, approximately 530 for TMO, and approximately 4,000 students for WBC. Overall, there were about 8,000 student enrolments in distance education in Manitoba in 2009-10 (down from approximately 8,500 enrolments in 2008-09).

Governance and Regulation

Currently, Manitoba Education is in the process of reviewing policies related to distance learning in the province. The original policy document was written in 2000 and was accompanied by a document outlining a peer review process for new course development. Both were out of date, and the Distance Learning Unit and the Learning Support & Technology Unit of Manitoba Education are working on renewal of the policy document so it better reflects the current situation in Manitoba, and addresses all three distance learning options. The previous policy only addressed web-based delivery (distributed learning was the term used in 2000). In 2008, Manitoba Education hosted two forums seeking input from educators, school, and division administrators on distance learning in the province. The policy review committee met several times during the past two years to work on the draft document, supporting documents and handbooks for each of the three options.

The only reference in the Public Schools Act regarding distance education is that the Minister of Education can approve courses of study, including correspondence and other courses. Manitoba Education has issued other regulatory and policy documents, along with handbooks for each of the three distance learning options (these handbooks are also being revised currently through the review process described above).

The Wapaskwa Virtual Collegiate (WVC) is a virtual high school servicing the First Nations communities within Manitoba. WVC was established under the Education Partnerships Programme in 2009, funded by the federal Department of Indian and Northern Affairs, as a consortium project for all Manitoba First Nations. The need for WVC was identified by the Education Directors of the Manitoba First Nations, and the online school began delivering courses, as a part of an initial pilot project, in the spring of 2010.

There are 19 First Nations schools providing grades 9-12 courses to students seeking to meet the graduation requirements in the Province of Manitoba. In most locations, high schools are unable to offer a full complement of courses, primarily due to insufficient staffing and high costs associated with courses in the sciences. These limitations require First Nations schools to offer their courses in a specific sequence in two or three year rotations. With limited ability to repeat courses, particularly in grade 12, it often hinders a student's ability to graduate on schedule. Without the capacity for students to have a second chance to take these courses, the graduation rates cannot achieve parity with those of larger schools. Additionally, the unavailability of trade prerequisite courses places the students in an economically disadvantaged position.

The principal purpose of the WVC is to ensure equal opportunity for success for First Nations learners. With the support of and in partnership with Credenda Virtual High School (in Saskatchewan) and Manitoba Department of Education, the WVC acts as an e-learning service provider to First Nations operating K-12 schools in Manitoba. The experience of being a novice e-learning institution over the past year has been a challenging one, as WVC played dual roles as both course developer(s) and online teacher(s). As course developers, the task was to provide an interactive programme for a blended presentation. The programme was required to develop courses that provided engaging learning opportunities, through links to online learning activities and assessment that appealed to the different learning styles of students. These learning options needed to be utilised by the instructor(s) during synchronous sessions on *Elluminate*® and by the student(s) using the asynchronous material on the *Desire2Learn*® management system. As instructors, the most important information gained through the initial pilot course was the need to build a strong relationship between the student and instructor. WVC was fortunate to have opportunities to meet the students and visit them at their local schools. Providing a variety of opportunities for feedback to students in the blended programme was essential for establishing that positive working relationship. For example, they used chat, discussion boards, e-mail and verbal communication during the daily synchronous *Elluminate*® sessions.

Although WVC was successful at providing assessment feedback in a timely manner, our greatest challenge was encouraging students to complete assignments in a timely manner. The staff and students look forward to their second round of piloting, having survived the many challenges of this new experience during its first year.

Saskatchewan

Population – 1,023,810
Total Area – 651,900 km²
Population Density – 1.57 people/km²
Capital (Population) – Regina (179,246)
Number of K-12 Schools – 719 (2009-10)
Number of K-12 Students – 159,818 (2009-10)

Saskatchewan is the middle of the three Prairie Provinces. While Regina is the capital, Saskatoon is the largest city in the province, with these two cities representing 40% of the population.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	Some print-based delivery.
Other online programmes	Yes	
Provincial-level policy	No	

Online Programmes

Historically, Saskatchewan has had a system of K-12 distance education much like Manitoba where the Ministry was responsible for the delivery of courses through online, televised via satellite, and print-based courses. However, in 2009-10 the Ministry devolved the responsibility for distance education to the school divisions. As the Ministry had worked extensively to ensure that teachers, schools and school divisions were able to build their own capacity to provide distance learning most of the 29 school divisions were operating some sort of distance education programme. Sixteen of these programmes also provided courses or spaces to students outside of their own school through the Saskatchewan Distance Learning Course Repository. During the 2009-10 school year there were 3,591 course enrolments from 2650 distinct students. At present students can enrol in any one of 71 courses that are available in print-based, blended, online asynchronous, online synchronous and televised synchronous formats.

Finally, the Ministry undertook considerable work in 2009-10 to ensure that print delivery continued to be available for students who could not, for whatever reason, access courses online.

Governance and Regulation

The only reference to distance education in the *Education Act* is related to the Technology Supported Revolving Fund, which indicates that it is to be used "to provide educational courses to all areas of Saskatchewan through the use of distance-education technology." This section is no longer relevant with the devolution of distance education services from the Ministry.
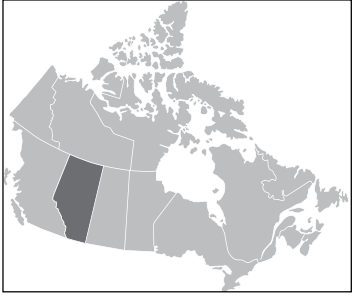
Credenda Virtual High School is a First Nations online school that uses *Elluminate*® to deliver primarily synchronous learning. Since 2005 Credenda has grown to accommodate approximately 500 eStudents over the school year, both First Nations and Non-First Nations, from around the Province of Saskatchewan. Our approach to online learning is a team effort for eStudents that provide built in supports from Credenda in such areas as eTeacher daily instruction and encouragement, easy access to technical support and help desk personnel, guidance counseling services, and administrative supports combined with the on-site teacher interaction for moral support and accountability. eStudents have regularly scheduled classes daily in an online classroom setting with their eTeacher. Each course is structured with a common template for achieving learning outcomes, which is hosted on our servers with our learning management system, *Desire2Learn*®.

Each of the teacher's experiences are unique to the individual teacher. Depending on the level of interaction they insist upon with their eStudents, each experience is different. However, it should be said that it takes a very special teacher to teach online. It is not a matter of transferring regular brick-and-mortar pedagogy into an online setting. Credenda eTeachers say this is the hardest they have worked in years, because it requires so much more preparation for their daily classes. The challenge is engagement. In the face-to-face setting, a teacher can observe whether a student has their head on the desk and is having a snooze, but online a student may log on and be doing other things. That is why the on-site teacher is so critical to ensure students are on task. Credenda requires participating First Nations schools to have a site teacher, who is a qualified teacher that supervises or monitors students when they are taking their online courses from Credenda. Additionally, eTeachers ask more questions of their eStudents to determine whether an eStudent is listening and involved in the class. They use a lot of online Web 2.0 resources for student assignments. eTeachers spend a great deal of time following up with students. If an eStudent is absent, they are referred to the Principal and Guidance Counselor who follow up with the eStudent and on-site eTeacher.

Many eStudents have commented that Credenda is a school that cares for students. The school motto is "Be the Change you Want to See" and, as such, Credenda organises charity drives and offers a Social Responsibility course for free, as well as a Leadership course. The school feels that equipping students academically is very important, but equally as important is equipping them for life. So Credenda gets involved in their lives and reaches out to students struggling with personal issues and tries to provide the supports they need. Academically, Credenda has high expectations that are outcomes driven. To achieve these outcomes, Credenda utilises a mastery learning approach. The school also has monthly eStudent Assemblies where they feature a career opportunity and connect it with their online learning outcomes. The intent is to make learning meaningful.

Alberta

Population – 3,632,483
Total Area – 661,848 km^2
Population Density – 5.49 people/km^2
Capital (Population) – Edmonton (730,372)
Number of K-12 Schools – 2,128 (2009-10)
Number of K-12 Students – 585,397 (2009-10)

Alberta is the most western, most populated, and largest of the three Prairie Provinces. The metropolitan regions surrounding the cities of Edmonton and Calgary represent approximately 60% of the population. Alberta is the only province in Canada that has charter school legislation—although there are no cyber charter schools in operation at this time.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	No	
Other online programmes	Yes	
Provincial-level policy	Yes	Changes currently under review.

Online Programmes

At present there are over 20 K-12 distributed learning programmes in Alberta. Distributed learning is a flexible approach to any learning that is purposefully designed to allow teachers, students, and learning and teaching resources in the regular classroom setting or in different, non-centralised locations, to interact while separated by time and/or place for some or all their learning activities. Distributed learning, therefore, encompasses all forms of K-12 distance education in Alberta. There is a single province-wide programme administered by the Pembina Hills Regional School Division, the Alberta Distance Learning Centre (ADLC). ADLC offers courses in a variety of formats (e.g., print, online, and blended formats), and manages the Vista Virtual School and *Centre francophone d'éducation à distance*. In 2008-09, the ADLC had 28,338 course enrolments at the secondary level and 6,320 enrolments at the elementary and junior high levels.

In addition to this province-wide programme, there is also a series of district-based programmes supported by the various public and Catholic school districts in the province (and note that Alberta is a province that has publicly funded Catholic school districts). These include Argyll Centre, Aspen View Virtual School, Battle River Online, Buffalo Trail Students Online, Golden Hills Virtual School, Holy Family Cyber High School, Innovative Learning Services, InterEd, Peace Academy of Virtual Education, Revelation Online, Rocky View Virtual School, School of Hope, St. Gabriel Cyber School, St. Paul's Academy Centre for Learning@Home, among others.

Finally, there is an aboriginal focused online school—SunChild E-Learning Community.

Governance and Regulation

At present, the *School Act* includes the following provisions related to distance education:

> Division 4 – Section 39. (3) The Minister may make regulations:
>
> (e) providing for correspondence courses and the fees to be charged in connection with them;
>
> (f) governing registration in, the fees to be charged for registration in and the operation of private correspondence courses and private tutoring institutions that offer correspondence courses or tutoring in the same or substantially the same subjects as those offered in schools.

In addition, Alberta has sections in their annual *Guide to Education* related to distributed learning and online delivery that outline some specific requirements primarily related to the amount of required instructional time. It also advises school authorities that wish to undertake online programmes that they will need 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, synchronous or asynchronous; how to deliver all outcomes of Alberta programmes of study; provision for writing achievement tests and diploma examinations; programme and teacher evaluation; how to provide alternative forms of programme delivery for non-resident students who are experiencing difficulty in the online environment (Government of Alberta, 2010, p. 65).

In 2007, the Ministry of Education began a review of K-12 distance education in the province with the goal of developing a *Distributed Learning Strategy*. To date there has been a broad consultation process that has included 1774 responses to an online survey, 60 interviews, 28 focus groups, and 21 site visits. However, the development of this *Distributed Learning Strategy* was later subsumed by a larger initiative.

In June 2010, the Ministry of Education released the *Inspiring Action on Education* discussion paper. This document, among other things, called for a system of education where teachers were skilled in the design and delivery of instruction "face-to-face, online, and other non-traditional environments" (p. 24). Essentially, the vision outlined would create a school system where students, teachers and administrators were all comfortable with education being delivered with or without technology in a variety of delivery models. The public consultant process is still on-going, however, action on this vision is expected to occur in Spring 2011.

British Columbia

Population – 4,419,974
Total Area – 944,735 km^2
Population Density – 4.68 people/km^2
Capital (Population) – Victoria (78,057)
Number of K-12 Schools – 1976 (2009-10)
Number of K-12 Students – 649,952 (2009-10)

British Columbia is the most westerly province in the country, as well as the largest and most populace of the Western Canadian provinces. The largest city in the province is Vancouver, which is also the third largest in Canada, and the greater Vancouver region has approximately 2,300,000. If you exclude the greater Vancouver region and the metropolitan Victoria area, the population density of the province drops to 2.1 people/km^2.

K-12 Online Learning

Category	Yes/No	Comments
Province-led programme	Yes	
Other online programmes	Yes	53 public & 12 independent
Provincial-level policy	Yes	School Act, Sections 3.1 & 75 (4.1) Distributed Learning Policy Independent School Act, Section 8.1

Online Programmes

The primary distance education programmes, or distributed learning schools (as they are referred to in the province), are at the district level. At present there are 53 public distributed learning schools and 12 independent (or private) distributed learning schools. LearnNowBC is a web portal and single point of entry to information about distributed (online) learning in British Columbia for students, parents and educators. This one-stop educational portal provides access to choices and free services such as tutoring, advising, homework help, etc. for learners of all ages. There is a searchable course database that lists courses from all 53 distributed learning schools. In 2009-10, there were 71,405 unique students enroled in one or more courses through distributed learning in British Columbia. This has increased from 59,345 students in 2008-09, 48,941 students in 2007-08, and 33,022 students in 2006-07.

Open School, previously supported with Ministry of Education funding and now operated on a cost-recovery model by another Ministry, provides provincial content and online hosting services to Boards without the capacity or desire to manage their own.

Governance and Regulation

The legislative language in the *School Act, 2006* allows for a student engaged in distributed learning to enrol in educational programmes falling under multiple jurisdictions (or boards of education—see section 3.1 of the *School Act*), and that any school district wishing to establish a distributed learning school can do so "only with the prior agreement of the minister" (see section 75 (4.1) of the *School Act*). The *Independent School Act, 2006* contains similar language concerning the establishment of distributed learning schools "only with the prior agreement of the minister" (see section 8.1). As such, these agreements between the Ministry and the school districts or independent schools, combined with policy, serve as the main governance documents for distributed learning in British Columbia.

In addition to the distributed learning agreements between the Ministry and the individual school districts, the Ministry also has a series of policy documents that outline the regulations that distributed learning schools must follow. The key features of these regulations are:

- boards of education are responsible for distributed learning;
- boards must use BC certified teachers;
- students taking distributed learning must meet the same course requirements as any other student;
- it must be tuition free;
- it must provide appropriate support within a coordinated province-wide distributed learning system;
- courses taken through distributed learning are equivalent to the same course taken in a classroom; and
- students enrol at the school of their choice, not through the Ministry.

Links to all of the policy documents, along with the general agreements between the Ministry and school districts are available on the Ministry's website.

Since 2006, distributed learning is funded on a course-based model, and pro-rated based on who is delivering the courses. Each full course is considered equivalent to 1/8 FTE and a normal FTE is 8 courses. For example, if a student takes 2 courses from a virtual school and 6 courses from a brick-and-mortar or neighbourhood school. The virtual school would get 2 courses of funding (1/4 FTE) and the other school 6 courses (3/4 FTE). However, it should be noted that students are not capped at 1 FTE. A neighbourhood school can provide support for students at their school engaged in distributed learning and receive a "DL Support Block" equal to 1/8 of the FTE funding. For example, if a student takes 7 courses at his neighbourhood school, which also provides him with a support block, and 1 online course from a virtual school. The neighbourhood school would get 1 FTE funding and the online school would get 1/8 FTE funding. Neighbourhood schools that provide this school-level support are still capped at 1 FTE.

The responsibility for quality assurance falls upon the Ministry, which is undertaken through the use of compliance audits and quality review site visits that combine a series of quantitative and qualitative measures. This process was described earlier, in the Brief Issue Paper written by Tim Winkelmans from the e-Learning Programmes Unit of the Ministry of Education.

Vancouver Learning Network Secondary (VLN-S) is a distributed learning programme of the Vancouver Board of Education, serving students in British Columbia and, in particular, urban students who ordinarily reside in the Greater Vancouver area. It is currently the largest virtual school programme in the province, with approximately 8,000 course registrations annually. VLN-S is centrally located within the host district as well as within the Greater Vancouver region. This has facilitated accessibility for students, who occasionally attend the school to meet with their counselors and teachers, write required course and provincial exams, and participate in an array of optional activities—tutorials, workshops, labs, fitness testing and field trips offered to stimulate interest and engagement as well as fulfill aspects of course learning outcomes.

The secondary programme serves grade 8-12 level students who are school age or adults. The majority of VLN-S students are supplemental. These students frequently cite flexibility and choice as their reasons for choosing to take a course at VLN-S. VLN-S also has many students, studying full-time or part-time, who are no longer registered in a neighbourhood school. These students choose to complete high school graduation through VLN-S, and often require greater flexibility than a face-to-face school is able or willing to provide. From special needs to special circumstances, these students seek a highly individualised educational plan and customised timelines that allow them to work at a pace that meets their needs.

As VLN-S is a twelve month school, students are able to start and finish courses at any time, as well as access their education programme from any location they may be, whether in the same building, a few blocks away or on the other side of the globe.

The teaching staff at VLN-S typically doubles in the course of a year, starting with a core group of teachers in September, with new teachers added throughout the year as enrolments continue to rise. Teaching at VLN-S is organisationally demanding. As students start and finish at different times, teachers never have a class of students who are working on the same lesson at the same time. Instruction at VLN-S is largely asynchronous, however, the teachers build core synchronous experiences—both online and face-to-face - that students may participate in irrespective of where they may be in the course curriculum.

For students, VLN-S offers educational experiences that are aligned with their use of communications and technology. Most students learn of VLN-S by "word of mouth" —in the broad definition, by telling friends in their social networks. After taking one course, many students return for additional courses, as they are drawn to the freedom that is gained in school timetabling and the ability to work at their own pace. Learners are increasingly seeking quality, flexible learning experiences and making more informed choices with respect to their education.

3.4 Northern Canada
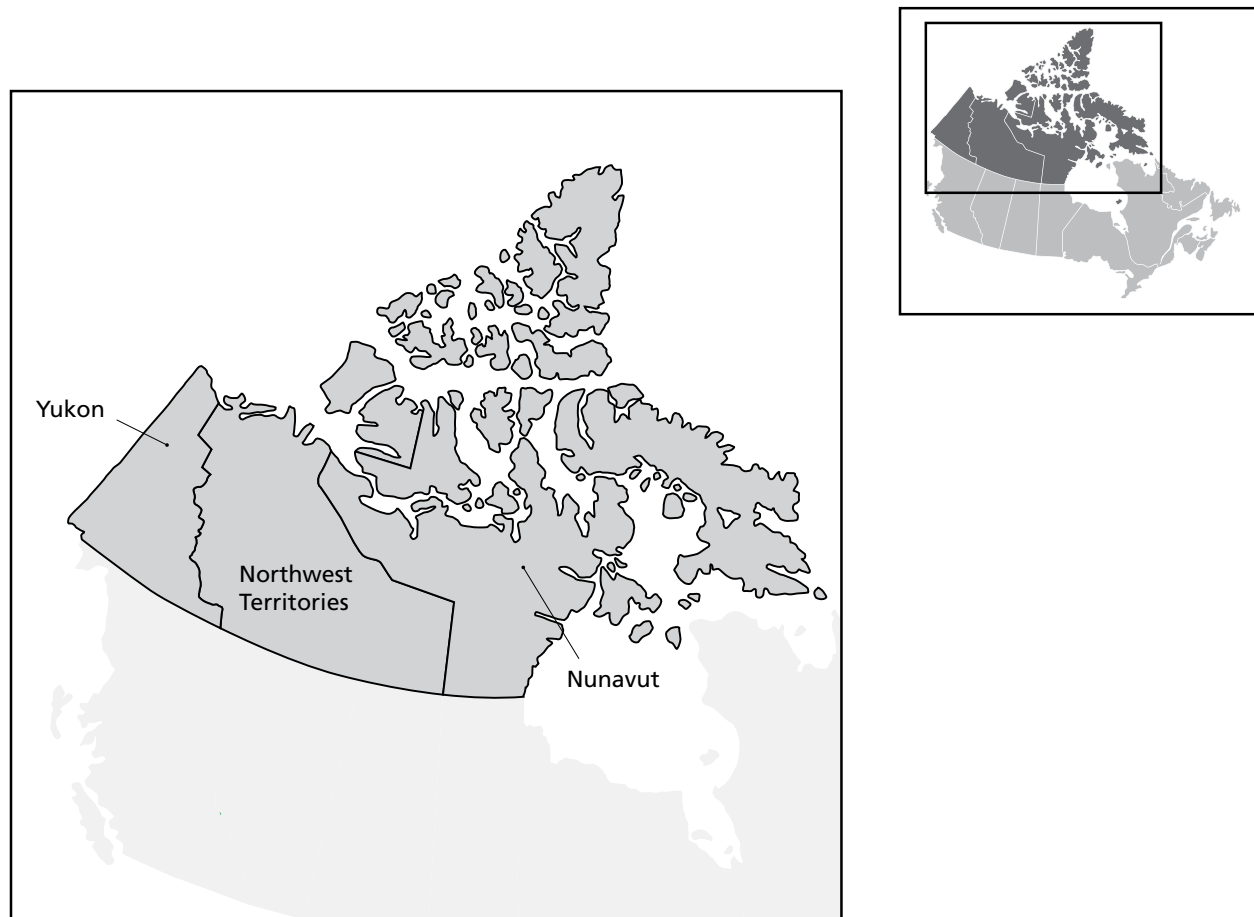
The Northern Canada region is geographically the largest in Canada, in fact it includes about 40% of the total land mass of the country. However, less than 1% of the total population of Canada resides in one of these three territories (i.e., 0.3% to be precise). In addition to being a large, sparsely populated region, the three territorial governments do not enjoy the same legislative freedom as the provinces (at least not constitutionally). All three territories utilise the K-12 curriculum of one of the southern provinces (i.e., the Yukon uses the British Columbia curriculum, while the Northwest Territories and Nunavut use the Alberta curriculum), with some additions to reflect their northern status and aboriginal cultures.

As jurisdictions without their own curriculum, it is natural that all three territories make use of K-12 distance education programmes located in the provinces they share a curriculum with. Although all three territorial governments have or have attempted their own home grown distance education programmes. It should be noted that the territorial governments are also dealing with a variety of other social challenges that affect the delivery of K-12 education, and K-12 distance education is simply a small part of this larger obstacle that needs to be overcome.

	Yukon
[map]	Population – 33,442 Total Area – 482,443 km^2 Population Density – 0.07 people/km^2 Capital (Population) – Whitehorse (22,898) Number of K-12 Schools – 28 (2009-10) Number of K-12 Students – 2933 (2009-10)

The Yukon is the most western and also the smallest of Canada's three territories. The territory follows the same curriculum as the Province of British Columbia, with some additions to address their distinct language and culture. Recently, Statistics Canada reported that the Yukon was the most connected educational jurisdiction in Canada with a student/computer ratio of 2.9:1.

K-12 Online Learning

Category	Yes/No	Comments
Territory-led programme	Yes	Video conferencing
Other online programmes	No	Uses programmes from other provinces
Territorial-level policy	Yes	

Online Programmes

The Yukon has had a long history with K-12 distance education, or distributed learning as it is referred to in the territory. During the 1998-99 school year, the Yukon Department of Education piloted a Grade 11 course in Information Technology to 12 students (10 of whom completed the course successfully). The pilot was continued for several subsequent years. In 1999-2000, two Yukon students participated in a national distributed learning project, The Hurley Island Project, developed and implemented by the Ontario Independent Learning Centre. The Hurley Island Project saw these two students join 23 other students from across the Canada in an online Grade 11 Information Technology course and Grade 12 Environmental Science course.

Since 2004, the Yukon has maintained a territory-wide video conferencing programme. The Department of Education has deployed video conferencing suites to all rural communities and to several Whitehorse schools. Video conferencing allows for schools to take advantage of teaching specialists in neighboring community schools. As of September 2010, three courses in mathematics and sciences are being offered locally by video conferencing to 13 students in four community schools (up from one student in 2009-10 and four students in 2008-09).

In addition, the Government of the Yukon has entered into agreements with a variety of course content providers in British Columbia and Alberta. The Yukon Department of Education's *Annual Report* for the 2006-07 school year reported that Yukon students were able to take advantage of

courses offer through British Columbia's Open School, and that there were 141 students registered in 51 different courses (up from 87 students in 49 different courses during the 2005–06 school year). This agreement has been in place since January 2001, when the Department reported 35 students enroled in a total of 110 correspondence courses and 15 students enroled in eight online courses, with an overall 93% successful completion rate.

In the *Annual Report* for the 2008-09 school year, it was reported that the Yukon had agreements with eight distance education schools in British Columbia (the primary one continues to be the Northern British Columbia Distance Education School (NBCDES)), from B.C. Open School and the Alberta Distance Learning Centre (ADLC). The agreement with the ADLC was to allow French students access to distributed learning through the *Centre francophone d'éducation à distance* (a French-language partner programme of the ADLC). In 2008-09, there were a total of 96 students enroled in a total of 135 courses through these distance education schools.

In addition to the students enroled in the synchronous video conferencing system, there were eight students enroled in courses offered by the ADLC and 113 students enroled in courses offered by the NBCDES in 2009-10.

Governance and Regulation

According to the *Education Act, 2002*:

> 30 (1) The deputy minister may provide for distance education courses of instruction on conditions prescribed by the guidelines established by the Minister.
>
> (2) The Minister may charge fees for the provision of distance education courses as prescribed by the regulations. S.Y. 1989- 90, c.25, s.30.

The Department of Education is also governed by Memorandums of Understanding it has with each of the individual distance education schools. For example, the memorandum with the NBCDES states that the distance education school must provide the courses and all resources to students, along with other administrative and support items including the assignment of teacher advisors to students who are using distributed learning courses and the issuing report cards.

In addition, the Department requires that all schools that enrol students in any distributed learning programme assign a local teacher to monitor those students. This school-based teacher can range from a dedicated distributed learning facilitator to a simple assignment given to a teacher on top of their full-time classroom teaching duties. In most instances, these teachers are provided a block of time for their distributed learning supervisory and facilitating duties.

Finally, since the 2003-04 school year, distributed learning courses have been offered at no cost to students from Grade 1 to 12. The Department of Education covers the cost for their enrolment for all students up to the age of 21. However, the Department limits the number of distributed learning courses a student can be enroled in at any given time to two courses. But there is no maximum number of courses a student can take, so once a student completes a distributed learning course they can enrol in another.

	Northwest Territories
	Population – 42,940
	Total Area – 1,346,106 km^2
	Population Density – 0.03 people/km^2
	Capital (Population) – Yellowknife (18,700)
	Number of K-12 Schools – 49 (2009-10)
	Number of K-12 Students – 8,407 (2009-10)

The Northwest Territories is the oldest of the three territories, and it follows the same curriculum as the Province of Alberta, with some additions to address their distinct language and culture.

K-12 Online Learning

Category	Yes/No	Comments
Territory-led programme	No	
Other online programmes	No	Uses distance offerings from the Alberta Distance Learning Centre (ADLC)
Territorial-level policy	Yes	

Online Programmes

The only distance education programme within the Northwest Territories appears to be an online Northern Studies 10 course offered during the second semester through Aurora College (a local post-secondary institution in the Northwest Territories). Beyond this single course, the territorial Government signed a *Memorandum of Understanding* (MOU) with the ADLC in 2004 to provide print-based and online courses to students in the territory. According to the 2005 report *Towards Excellence: A Report on Education in the Northwest Territories*, from 2000 to 2005 there were a total of 329 course enrolments, with 106 students having passed their course, 77 having failed, and 146 having withdrawn.

Governance and Regulation

The *Education Act, 2009* allows various educational bodies to "authorise, supervise and evaluate the use of distance learning programmes in the provision of the education programme" (p. 72). In addition, the MOU outlines the specific responsibilities, duties and opportunities for both parties. Finally, Section 17 of the *Senior Secondary School Administrators' Handbook* outlines a series of requirements for distance learning.

Schools are responsible for the course fees when a student enrols in a distance education course, however, the Department of Education, Culture and Employment will reimburse schools upon a student's successful completion of the course.

Nunavut

Population – 29,474
Total Area – 2,093,190 km^2
Population Density – 0.014 people/km^2
Capital (Population) – Iqaluit (6,184)
Number of K-12 Schools – 42 (2009-10)
Number of K-12 Students – 9038 (2009-10)

Nunavut is the newest and most easterly of Canada's three territories. Created from the Northwest Territories in 1999, it is the largest of Canada's provinces and territories. Nunavut has followed the curriculum of the Province of Alberta, but is gradually developing its own curriculum to reflect the Nunavut context of its students within the larger context of Canada.

K-12 Online Learning

Category	Yes/No	Comments
Territory-led programme	No	
Other online programmes	No	
Territorial-level policy	No	

Online Programmes

Nunavut does not have any active K-12 distance education programmes, however, the territory has piloted programmes in the past and has indicated that it has plans for future pilot projects.

The Alberta Distance Learning Centre continues to provide the majority of distance learning courses to Nunavut secondary students. These courses are largely print-based. Finally, some students will take distance learning courses from other jurisdictions, although they need to be approved by the Department as being equivalent in order to receive credit.

Governance and Regulation

When it was first created, Nunavut continued to utilise the *Education Act, 1996*, a piece of legacy legislation from the Northwest Territories. This legislation contained a provision that allowed various educational bodies to "authorise, supervise and evaluate the use of distance learning programmes in the provision of the education programme" (p. 58).

This was later replaced when the territory passed its own legislation. The only reference to distance education in the current Education Act, 2008 is a statement that a university providing "distance learning programmes by mail or by electronic means from outside Nunavut to persons in Nunavut" was not considered to be operating in the territory (p. 95).

Resources

Newfoundland and Labrador

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

K-12 School Profile System
   http://www.education.gov.nl.ca/sch_rep/pro_year.htm

Killick Centre
   http://www.mun.ca/killick/home/index.php/

Nova Scotia

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

Correspondence Study Programme
   http://csp.ednet.ns.ca/

Strait Regional School Board Virtual School
   http://142.227.198.140/moodle/

Chignecto-Central Virtual School
   http://ccvs.ednet.ns.ca/ccvs/index.html

Agreement Between The Minister of Education of the Province of Nova Scotia and
The Nova Scotia Teachers Union
   http://www.ednet.ns.ca/pdfdocs/collective-agreements/teachers_provincial_agreement_english.
   pdf

Prince Edward Island

Minister's Directive No. MD 2001-05 Distance Education
   http://www.gov.pe.ca/eecd/index.php3?number=1028346&lang=E

Minister's Directive No. MD 2008-05 Distance Education
   http://www.gov.pe.ca/eecd/index.php3?number=1027948&lang=E

New Brunswick

New Brunswick Distributed Learning Programme
   http://nbvhs.nbed.nb.ca

Quebec

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

Learn Quebec
   http://www.learnquebec.ca/en/index.html

Écoles éloignées en réseau / Remote Networked Schools
   http://www.eer.qc.ca/

Ontario

e-Learning Ontario, Ministry of Education
http://www.elearningontario.ca/

Ontario Education Resource Bank
http://resources.elearningontario.ca/

Ontario eLearning Consortium
http://oelc.ca/

Ontario Catholic e-Learning Consortium
http://sites.google.com/site/ontariocatholicelc/home

Consortium d'apprentissage virtuel de langue française de l'Ontario
http://www.apprentissageenligne.org/

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

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

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

Manitoba

Independent Study Option
http://www.edu.gov.mb.ca/k12/dl/iso/index.html

Teacher Mediated Option
http://www.edu.gov.mb.ca/k12/dl/tmo/index.html

Web-Based Course Option
http://www.edu.gov.mb.ca/k12/dl/wbc/index.html

Wapaskwa Virtual Collegiate
http://www.wapaskwa.ca/

Saskatchewan

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

Credenda Virtual School
http://www.credenda.net/

Alberta

Alberta Distance Learning Centre (ADLC)
http://www.adlc.ca/

SunChild E-Learning Community
http://www.sccyber.net/

Distributed Learning Strategy
http://education.alberta.ca/department/ipr/adl-strategy.aspx

Distributed Learning Forum Online Community
http://arpdc.ab.ca/DLForumA/main.html

Inspiring Action on Education
http://engage.education.alberta.ca/uploads/1006/inspiringactiononedu19828.pdf

British Columbia

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

Ministry of Education, Independent School Distributed Learning (DL) Programme
http://www.bced.gov.bc.ca/independentschools/bc_guide/dl_program.htm

LearnNowBC
http://www.learnnowbc.ca

Virtual School Society
http://www.vssociety.ca/

Yukon

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

Northern British Columbia Distance Education School
http://www.des.prn.bc.ca/

Centre francophone d'éducation à distance
http://www.cfed.ca/

Northwest Territories

Department of Education, Culture and Employment
http://www.ece.gov.nt.ca/

Nunavut

Department of Education
http://www.gov.nu.ca/education/index.htm

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Appendix A

1. Describe the current system of K-12 distance education in your programme.

2. When did the current system begin?

3. Is K-12 distance education managed at the provincial level or at the district level?

4. How many K-12 distance education programmes are there in your province?

5. Does the Ministry of Education maintain a listing of all of these programmes?

   a. If yes, could this list be made available to the researcher(s)?

6. Does the Ministry of Education keep records on the number of K-12 students who complete courses at a distance?

   a. If yes, how many K-12 students were enroled in distance education courses in 2008-09?

   b. If yes, how many K-12 students were enroled in distance education courses in 2007-08?

   c. If yes, how many K-12 students were enroled in distance education courses in 2006-07?

7. Does the Ministry of Education track the performance of K-12 students who complete courses at a distance separate from students who complete their courses from a traditional brick-and-mortar school?

   a. If yes, could this data be made available to the researcher(s)?

8. Are portions of the Education Act or any other piece of legislation in your province that are specifically related to K-12 distance education?

   a. If yes, what sections of which pieces of legislation?

9. Do other regulatory documents from the Ministry of Education exist that govern K-12 distance education in your province?

   a. If yes, what are they?

10. How is the K-12 distance education programme funded in your province?

11. How are the teachers selected for the three programmes?

12. How are the courses developed for the three programmes?

13. If there are any follow-up questions, who would be the best person for the researchers to contact?

   Name:
   Title:
   E-mail address:
   Telephone number:

Appendix B

I wanted to attach a copy of the profile for [insert province's or territory's name here] from the 2009 report and ask you the following questions.

1. Have there been any changes in the legislative regime related to K-12 distance education?

2. Have there been any changes in the regulatory regime related to K-12 distance education?

3. Are there additional programmes, not mentioned in the 2009 report, which should be included in an updated report?

4. How many students were involved in K-12 distance education during the 2009-10 school year?

5. Do you have any policies related to the importing of online courses or online course completion from other provinces? Other countries?

6. Do you have any policies related to the exporting of online courses or online course completion from other provinces? Other countries?

7. Are there any additional issues related to K-12 distance education, not mentioned in the 2009 report, which should be included in an updated report?

8. Is there any information in the 2009 report that you feel should be updated or revised?

Call for Sponsors for the 2011 "State of the Nation: K-12 Online Learning in Canada" Study

iNACOL is seeking funding for next year's K-12 online learning study of Canada. If your organisation is interested in participating through sponsorship by supporting the third annual "State of the Nation: K-12 Online Learning in Canada" study, please contact Michael Barbour, principal investigator at mkbarbour@gmail.com, or Susan Patrick, CEO, iNACOL at spatrick@inacol.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 organisation's interest in and commitment to supporting online learning. Your company or organisation will be recognised for its support of virtual schools seeking to effectively expand educational options for K-12 students across Canada.

iNACOL currently has over 3,300 members and our previous studies are readily available to all members, as well as members of their organisations who enroled over 1,500,000 students in 2009. With your support, you will be recognised among educators as an organisation 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 programme 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 iNACOL Webinar highlighting the study

The plans for the 2011 study include updating the K-12 policy and activity reports for each of the provinces, a greater focus on some of the individual programmes within each jurisdiction (including more vignettes), and more issue papers examining specific issues in K-12 online learning in Canada written by individuals from a variety of sectors.

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