

e-Learning Profile 2006

A Snapshot of the Alberta, Canadian and International e-Learning Landscape

*Prepared for Alberta Education
Prepared by Learning Cultures Consulting Inc*

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1. Purpose

This *Profile* is intended to provide Alberta Education and its stakeholders with background material to inform discussions about a provincial approach to e-learning.

Information is provided in the form of:

- ♦ A summary of various e-learning definitions from literature and Canadian educational jurisdiction sources;
- ♦ Descriptions of existing plans, activities, strategies, frameworks, discussion papers, policies, legislation, manuals, guides, and handbooks as they relate to e-learning in Alberta;
- ♦ A high level profile of e-learning activities in the remaining provinces and territories in Canada, including reference to any supporting policies, legislation, standards, guidelines, and/or strategic plans where available; and
- ♦ A high level profile of e-learning activities in Australia, the European Union, Organization for Economic Co-operation and Development (OECD) countries, the United Kingdom, and the United States, including any supporting policies, legislation, standards, guidelines, and/or strategic plans where available.

It should be noted that the area of e-learning is complex and the landscape is changing rapidly. Up-to-date and comprehensive information will be needed to guide e-learning discussions. For additional information see Alberta Education's *Addendum to the e-Learning Profile: An Update Regarding Distributed Learning in British Columbia* (September 2006) and *e-Learning Environmental Scan: Needs and Preferences / Issues / Trends / Promising Practices* (March 2006).

2. Executive Summary

Alberta Profile

Alberta has made significant strides towards creating a positive environment for e-learning in English and French in the province (see Sections 4, 5 and 6). Government and Department strategic plans, business plans, and policy frameworks speak to creating flexible learning environments and improving learner access and choice, and thus promote e-learning in Alberta. Alberta's SuperNet provides the required bandwidth to support e-learning. The Technology Standards and Solutions initiative, LearnAlberta.ca, the videoconferencing capacity initiative, and the Research Working Group help to ensure that schools have interoperable hardware and software, quality resources, opportunities to pilot new teaching and learning technologies, and access to relevant research respectively. Several schools in Alberta have successfully delivered online learning programs since the mid-1990s and have formed an association that has been active and growing since 1998. Alberta Education chairs the Council of Ministers of Education, Canada (CMEC) Online Learning Working Group and has co-led the development of the Pan-Canadian Online Learning Portal. After recent consultations, a draft policy framework for out-of-province online learning is being finalized. An international education business plan, identifying priorities and actions for the next three years, is under development. Collectively, these plans and activities suggest that Alberta is well-positioned to engage in the development of a provincial approach to e-learning.

National Profile

Several provincial/territorial governments and education ministries have identified similar strategic directions with respect to e-learning in the Kindergarten to Grade 12 (K-12) sector (see Section 7). Some strategic plans are more broadly stated but their messages are clear – the goal is to improve equitable access to learning opportunities through e-learning.

All jurisdictions appear to be working collaboratively with a range of stakeholders to achieve their goals even though

- ♦ the language they use varies (e.g., distributed learning – British Columbia (BC), e-learning – Saskatchewan (SK) and Ontario (ON), distance learning – New Brunswick (NB), Newfoundland and Labrador (NL), and Manitoba (MB));
- ♦ the progress they have made towards implementing e-learning programs varies (e.g., Nunavut is at the stage of putting forward various funding proposals to the Federal government while several other jurisdictions such as New Brunswick are expanding existing comprehensive e-learning programs);
- ♦ the models of implementation they have adopted vary (e.g., centralized, decentralized); and
- ♦ the degree to which government provides professional development supports and services specific to the e-learning teaching environment varies.

Development and availability of multimedia learning resources to support e-learning also varies widely as does the robustness of the repositories. Some are government-sponsored centralized repositories (e.g., NB Education Portal) while others are created by either public television companies (e.g., TV Ontario) or school boards/associations (e.g., Distance Education and Community Network (DECN), Quebec).

Bandwidth and connectivity continue to be limiting factors in some remote communities, but most jurisdictions have adequate communications networks in place to support e-learning (e.g., CommunityNet – SK, EDNet – Nova Scotia, Stem~Net – NL, MERLIN – MB).

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A few Departments of Education have developed online courses (e.g., MB, SK, NL, NB). Some departments also host the courses on a departmental server (e.g., MB). In Saskatchewan, registrations for Saskatchewan Government Correspondence School online courses are administered by the Department through their CentraliSchool. Some schools in the Northwest Territories are using online courses provided by Alberta Distance Learning Centre or the Calgary Board of Education. In jurisdictions without centralized development or delivery, school boards promote their online courses from their own web sites (e.g., Toronto District School Board – ON). In Quebec, the Société de formation à distance des commissions scolaires du Québec (SOFAAD) provides online courses in French and English through eduSOFAAD.

In most jurisdictions, clear and consistent enabling legislation lags behind the implementation/practice of e-learning. This does not seem to be a significant barrier. Either the school or education act is broad enough to allow for flexibility or there is room for discretion by local administrators about programming options. More often than not, standards, guidelines, and roles and responsibilities are used to inform implementation of e-learning rather than prescriptive policies or legislation. There is, however, the potential to impede or hinder progress in e-learning where inconsistencies in use of language or lack of alignment among policy, legislation and practice exist.

The combined efforts of the Council of Ministers of Education, Canada toward the launch and ongoing enhancement of the Pan-Canadian Learning Portal speaks to a burgeoning pan-Canadian commitment to e-learning.

The presence of the Commonwealth of Learning in Canada suggests that e-learning is indeed a global activity and that Alberta Education may both contribute to and benefit from the work of this agency in the future.

Although CMEC and Alberta Education do not endorse the Canadian Council on Learning, CCL is currently working with the 21st Century Learning initiative. It may be important for Alberta to keep abreast of these activities.

Alberta Education and its stakeholders have an opportunity to draw from and build upon the work of their provincial and territorial colleagues with respect to e-learning.

International Profile

Internationally, Australia (see Section [8.1](#)) and the United Kingdom (see Section [8.4](#)) have invested significant resources over the past several years to build extensive K-12 e-learning communities. As global leaders in e-learning, these countries have much to offer Alberta in terms of the strategies, policies, standards, research, processes, relationship models, technologies, and other insights they have gained.

The European Union (see Section [8.2](#)) and the United States (see Section [8.5](#)) also recognize the importance of e-learning for the 21st century learner. They have both laid significant groundwork. Of particular note, is the One Laptop per Child initiative originating at the Massachusetts Institute of Technology. If successful, this initiative could transform e-learning. Again, Alberta can benefit from some of the groundwork done by various government agencies and professional organizations within the European Union and the United States.

The Organization for Economic Cooperation and Development (OECD) (see Section [8.3](#)) posed the following key e-learning policy question:

“What can governments and related agencies do to create an enabling environment for e-learning development and to reap all its benefits?”

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The ten responses provided by OECD to this question will be valuable to discussions regarding a provincial approach to e-learning.

3. e-Learning Definitions

Terms in use in e-learning contexts include:

- ♦ blended (or hybrid) learning,
- ♦ distance learning,
- ♦ distributed learning,
- ♦ e-learning,
- ♦ m-learning (mobile learning),
- ♦ online learning, and
- ♦ virtual (or Web-based) learning.

Some of these terms are used interchangeably. Definitions of these terms vary in the literature and among jurisdictions involved in e-learning. A summary of the definitions of these terms follows.

Terms as Defined in the Literature

Blended (or hybrid) learning is the combination of multiple approaches to teaching and learning which involve the use of various methods and resources derived from more than one kind of information source. For example, blended learning environments might combine technology-based materials and traditional print materials, group and individual study, structured- and self-paced study, tutorials and coaching (Wikipedia, http://en.wikipedia.org/wiki/Blended_learning, Retrieved December 2005). More recently however, with the prevalence of the Internet, it is defined as “an increasingly popular combination of online and [face-to-face] classroom learning activities” (Cyber Media Creations, <http://www.cybermediacreations.com/elearning/glossary.htm>, Retrieved December 2005) that integrate “e-learning techniques including online delivery of materials through web pages, discussion boards and/or e-mail with traditional teaching methods including lectures, in-person discussions, seminars, or tutorials” (Teachnology, <http://www.teachnology.com/glossary/terms/b/>, Retrieved December 2005).

The American Society for Training and Development (ASTD) defines blended learning as learning events that combine aspects of online and face-to-face instruction (Learning Circuits E-Learning Glossary, <http://www.learningcircuits.org/glossary.htm>, Retrieved December 2005).

The *Encyclopedia of Distributed Learning* (2004) defines blended learning as “the mix of in-person and online program delivery.” (Christi A. Olson, “Corporate Training”, p. 88)

Distance education, as defined by Schlosser and Simonson (2002) is a generic, all-inclusive term used to refer to the physical separation of teachers and learners. It is a term used interchangeably with Distance Learning, and Distributed Learning and has also been defined as: (1) The application of information technology (and infrastructure) to educational and student related activities linking teachers and students in differing places. (2) The student and instructor are physically separated by any distance. All communications are mediated by some type of electronic means in real or delayed time. Location is of no significance. (3) The organizational framework and process of providing instruction at a distance. Distance education takes place when a teacher and student(s) are physically separated, and technology (i.e., audio, video, computers, print) is used to bridge the instructional gap.

Distance learning is a method of learning in which students and teachers are not physically present at the same location. Instead, teachers and students exchange printed or electronic media and information, and use technologies that allow them to communicate asynchronously or in real time. Regular mail is often used to exchange written material, and to send videos, audiotapes, and

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CD-ROMs to the student. E-mail, the Web, and video conferencing over broadband network connections are used as well. In some countries, the material is supplemented by television and radio programming. Distance education programs are sometimes called **correspondence courses**, an older term that originated in nineteenth-century (Wikipedia, http://en.wikipedia.org/wiki/Distance_learning, Retrieved December 2005).

ASTD defines distance learning as the outcome of distance education, which is further defined as an educational situation in which the instructor and students are separated by time, location, or both. Education or training courses are delivered to remote locations via synchronous or asynchronous means of instruction, including written correspondence, text, graphics, audio- and videotape, CD-ROM, online learning, audio- and videoconferencing, interactive TV, and FAX. Distance education does not preclude the use of the traditional classroom. The definition of distance education is broader and entails the definition of e-learning (Learning Circuits E-Learning Glossary, <http://www.learningcircuits.org/glossary.htm>, Retrieved December 2005).

Distance learning as defined by Schosser and Simonson (2002) is a term used interchangeably with distance education and denotes the physical separation of teachers and learners. Unlike distance education however, this term emphasizes the learner and the responsibility the learner takes for their learning. It is also defined as “a system and a process of committing learners with distributed learning resources (American Council of Education).”

The *Encyclopedia of Distance Learning* (2004) suggests that distance learning and distributed learning are interchangeable. See distributed learning below.

Distributed learning is often used synonymously with distance learning and blended learning; distinct in that it is the outcome of education that combines a blend of online and traditional delivery methods (World Wide Learn, <http://www.worldwidelearn.com/elearning-essentials/elearning-glossary.htm>, Retrieved December 2005).

Schosser and Simonson (2002) use a definition by Saltzberg and Polyson (1996); “...an instructional model that allows instructor, students, and content to be located in different, non-centralized locations so that instruction and learning can occur independent of time and place. The distributed learning model can be used in combination with traditional classroom-based courses, with traditional distance learning courses, or it can be used to create wholly virtual classrooms.”

The *Encyclopedia of Distributed Learning* (2004) defines distributed learning (or distance education) as “the delivery of educational resources over a distance, allowing instruction and learning to occur independent of time and place. Originally, the term was applied to instruction that was “distributed” to students in off-campus locations, and included not only correspondence courses by mail, but also face-to-face instruction at non-campus sites. Currently, distributed learning refers to educational activities that integrate information technology into the learning and teaching enterprise. ...Distance learning can be viewed as learning that takes place in any technology-mediated, non-face-to-face setting.” (Kjell Erik Rudestam, “Distance Learning/Distance Education”, p 129)

E-learning is most frequently used to refer to computer-based training which incorporates technologies that support interactivity beyond that which would be provided by a single computer. It is an approach to facilitate and enhance learning through, and based on, both computer and communications technology (e.g., personal computers, CDROMs, digital television, PDAs and mobile phones, Internet, e-mail, discussion forums, collaborative software and team learning systems). E-learning may also be used to support distance learning through the use of WANs (Wide Area Networks), and may also be considered to be a form of flexible learning where just-in-time learning is possible. Courses can be tailored to

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specific needs and asynchronous learning is possible. Where learning occurs exclusively online, this is called online [learning]. When learning is distributed to mobile devices such as cell phones or PDAs, it is called m-learning (Wikipedia, <http://en.wikipedia.org/wiki/E-learning>, Retrieved December 2005).

Jamie Rossiter, (2005) defines e-learning more succinctly as "... the development of knowledge and skills through the use of information and communication technologies (ICTs) to support interactions for learning – interactions with content, with learning activities and tools, and with other people."

ASTD defines e-learning similarly: A term covering a wide set of applications and processes, such as Web-based learning, computer-based learning, virtual classrooms, and digital collaboration. It includes the delivery of content via Internet, intranet/extranet (LAN/WAN), audio- and videotape, satellite broadcast, interactive TV, CD-ROM, and more (Learning Circuits E-Learning Glossary, <http://www.learningcircuits.org/glossary.htm>, Retrieved December 2005).

E-learning or electronic learning as defined by Schosser and Simonson (2002) is a learning situation where the student interacts with electronic media to learn a skill or topic (e.g., videodisc, compact disc, video tape, audiotape).

The *Encyclopedia of Distributed Learning* (2004) defines e-learning as "skills and/or knowledge transfer that occurs over the Internet or an electronic network." (Christi A. Olson, "Corporate Training", p. 88)

M-learning is the term given to the delivery of training by means of mobile devices such as Pocket PCs, mobile phones and palmtop computing devices. Mobile learners are seeking "just-in-time, just-for-me" lessons in small manageable formats that they can undertake when it suits them. Mobile learning can be viewed as any form of [learning], teaching or studying that happens when the user is interacting through a mobile device (Wikipedia, <http://en.wikipedia.org/wiki/M-learning>, Retrieved December 2005).

ASTD defines m-learning similarly: Learning that takes place via such wireless devices as cell phones, personal digital assistants (PDAs), or laptop computers (Learning Circuits E-Learning Glossary, <http://www.learningcircuits.org/glossary.htm>, Retrieved December 2005).

Online learning is an umbrella term used to describe any education or training that occurs online" (Cyber Media Creations, Dec 2005, www.cybermediacreations.com/elearning/glossary.htm) or "any learning experience or environment that relies upon the Internet/WWW as the primary delivery mode of communication, [interaction] and presentation. Often used as a synonym for e-learning" (Intelera, <http://www.intelera.com/glossary.htm>, Retrieved December 2005).

ASTD defines online learning similarly: Learning delivered by Web-based or Internet-based technologies (Learning Circuits E-Learning Glossary, <http://www.learningcircuits.org/glossary.htm>, Retrieved December 2005).

Dr. Judith V. Boettcher, former Executive Director of the Corporation for Research and Educational Networking, defines interactive online learning as "an educational philosophy for designing interactive, responsive, and valid information and learning opportunities to be delivered to learners at a time, place, and in appropriate forms convenient to the learners."

Haughey, etal (1999) define online learning as "a program offered by a school that is delivered electronically, either at a school site or off campus. [It is] synonymous with virtual learning."

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The *Encyclopedia of Distributed Learning* (2004) defines online learning as learning that “involves the delivery of courses and learning components via the Internet. These courses or course components are delivered from an education provider to a student.” Although online learning is one form of distance learning or e-learning, these terms are often used interchangeably. (Ann Hill Duin, “Online Learning”, p. 343) Note: Later in this article Duin describes course components as learning objects.

Virtual (or Web-based) learning refers to a learning environment where teacher and student are separated by time or space, or both, and the teacher provides course content through course management applications, multimedia resources, the Internet, videoconferencing, etc. Students receive the content and communicate with the teacher via the same technologies (Wikipedia, <http://en.wikipedia.org/wiki/Special:Search?search=virtual+learning>, Retrieved December 2005). Virtual learning is a term frequently used interchangeably with online learning.

The *Encyclopedia of Distributed Learning* (2004) uses virtual learning and online learning interchangeably throughout the encyclopedia. See A. H. Duin’s definition of online learning above.

Although Schlosser and Simonson (2002) have defined some of the terms above, they have chosen to describe learning in terms of time and pace as summarized in the table below:

Same Time / Same Place	Different Time / Same Place
Traditional education. The instructor and learner are located in the same place and same time. Multimedia and computer-based learning can occur in this type of education. However, this is most often thought of as face-to-face, didactic learning.	Often thought of as independent study, this is self-paced study. It is still guided by an instructor; however, instructors may be available only during certain hours. Computer learning centres are an example of this concept (i.e., where learners still have to travel to a central facility).
Same Time / Different Place	Different Time/ Different Place
The instructor and classroom are “wired” to be transmitted to other locations. The most effective form of this is full use of audio and visual multimedia. However, it can be just audio or conducted via Web. Interaction and feedback does occur between the instructor and the learners.	This is what most people think of as distance education. The old correspondence courses were an example of this form of education. The newest form of this is the use of the web and learner/content management programs (e.g., WebCT, Blackboard, etc.).

Terms as Defined by Canadian Educational Jurisdictions

Alberta (See Alberta Education (July 2004) *Learning and Technology Policy Framework*. <http://www.education.gov.ab.ca/reading/policy/techframework/LTfwrk.pdf>.)

Online learning involves the use of Internet-based technologies to deliver instruction, access learning resources, and facilitate communication among learners and educators for both face-to-face and distance learning.

British Columbia (See Learning at a Distance http://www.bced.gov.bc.ca/dist_learning/, Retrieved December 2005)

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The flexibility to learn at a distance from the school is known as **Distributed Learning**. Distributed Learning can be offered online over the Internet, but also may include a variety of other delivery methods such as using paper-based or correspondence material, linking to live virtual classrooms or video technology and attending some in-school sessions. One key feature of Distributed Learning is that students may be able to start school throughout the year.

Students wanting to learn any time, any place or at any pace may choose distributed learning. It is an alternative to classroom-based instruction for kindergarten to grade 12 students. It can be delivered using paper-based print material, electronic delivery, face-to-face communication or combinations of these.

Electronic delivery may include:

- ♦ Online courses that use computer-based course delivery, conferencing, virtual classrooms, electronic mail service, video, or combinations of these and/or
- ♦ Systems that integrate technology and learning in one package; for example the student may use a multi-media program to learn Spanish on a computer.

Students enrolled in a distributed learning program usually take their educational program from home. Students may enroll full-time or part-time or may combine a distributed learning program with classroom-based instruction.

E-learning allows students living in rural areas of the province to take courses not offered at their school. By connecting classrooms to interactive technology, students have more choices.

Manitoba (See <http://www.edu.gov.mb.ca/ks4/dl/wbc/wbcgloss.html> and FAQs at <http://www.edu.gov.mb.ca/ks4/tech/tifa/question.html#wbc>, Retrieved December 2005)

Distance learning is learning that takes place where students and instructor are separated by distance or time.

Distributed learning allows students to take courses from a variety of sources (and delivery modes) to customize a program of study. In Manitoba, this means using a wide range of information technologies to provide learning opportunities beyond the bounds of the traditional classroom, where students can take courses for credit in several ways including web-based courses, interactive television, Independent Study Option, and Teacher Mediated Option. Often the term is used synonymously with online learning. The **distributed learning model** enables learners to access course credits from various provincially accredited organizations and to use various delivery models to meet graduation requirements. Learners are not bound by school division/district boundaries for accessing learning experiences.

E-Learning encompasses a wide set of applications and processes, including Web-based training, virtual classrooms, digital collaboration, and computer-based training.

Technically, **online learning** is a broad term encompassing all forms of course delivery where there is an online component. For example, some online courses use print-based materials supported by online communications. These communications may use the World Wide Web or they may be delivered via computer networks. **Web-based courses** (see definition that follows) contain both content and communications and these are accessed via the World Wide Web. In the K - S4 system in Manitoba, the two terms are used interchangeably because all of the online courses are web-based.

Web-based Courses (WBCs) are distance education course materials supported by computer-mediated communications and delivered asynchronously via the World Wide Web. Ancillary materials such as print, videos, and CD-ROM may be required.

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Newfoundland (See <http://www.cdli.ca/>, Retrieved December 2005)

Traditionally, **distance learning** for K-12 students has meant the independent use of specially developed student resources and real time student-teacher communications through a telephone-based audiographic system. The new model is IP based, meaning it relies on the use of computers, networks and the Internet. It is immediate, easier to update, and provides a growing variety of types of content and ways of interacting. Access is not locked to a prescribed schedule of communications times. All content and communications are digital, allowing for a more seamless blending of traditional and newer forms of content and learning experiences. Learning is not limited to the course content. E-learners gain valuable skills and capabilities while immersed in an environment of information and communications technologies.

Nova Scotia (See <http://www.ednet.ns.ca/>, Retrieved December 2005)

Online Learning is a dynamic learning environment where students access learning opportunities via the Internet.

Ontario (See <http://oknl.edu.gov.on.ca/eng/default.asp>, Retrieved December 2005)

e-Learning is the use of electronic technologies to support learning and teaching. A variety of learning opportunities can be offered through e-learning. For example, secondary school credit courses may be taught by teachers online, and electronic learning resources may be used in all grades, from K-12, in regular classrooms. The technology includes computer-based learning modules, videoconferencing, electronic whiteboards, digital projectors, e-mail, threaded discussions, and more.

Saskatchewan (See

http://www.learning.gov.sk.ca/branches/elearning/tel/pdf/tel_1998_discussion_paper.pdf,

Retrieved December 2005)

Distance learning: a learning situation characterized by the physical separation of the learner(s) from the instructor. The learning process is typically facilitated by the use of technology to bridge the distance.

Note: Saskatchewan's E-Learning Network comprises on-line, interactive television, audio conference, video conference, web conference, streaming and other technologies used to support and deliver high school and post-secondary credit courses, as well as other learning opportunities. Terms such as online courses and blended courses are defined in the E-Learning Network Guide.

4. Background of e-Learning in Alberta

Although business and strategic plans, policy frameworks and various initiatives encourage implementation of e-learning in Alberta, policies and legislation governing e-learning have not necessarily kept pace with the practice of e-learning in the Kindergarten to Grade 12 (K-12) community in the province. To provide further context for this statement you will find the K-12 e-learning environment in Alberta described below in terms of what influences are at play in setting future direction, how e-learning activities are guided, as well as some background information about who is involved in e-learning.

What influences e-learning in Alberta?

Alberta Education's *Business Plan 2005-06 to 2007-08*, released April 13, 2005¹ stresses the importance of providing "flexible learning opportunities" and states,

"Technology has given Albertans the capacity to access learning opportunities at any place, any time and in a variety of modes. Technology also is changing what students learn. Information and communications technology has been integrated into learning experiences to ensure students' competitiveness in a knowledge-based economy. Students must be prepared to understand, use and apply technologies in effective, efficient and ethical ways. There are ongoing expectations for technology to provide flexible learning opportunities and the education system must ensure that investment in technology yields the greatest benefits for our students."

The *Business Plan* also identifies principles that support the development of e-learning such as:

Accessible – Every student in Alberta has the right of access to a quality basic education consistent with the student's needs and abilities.

Responsive – The education system is flexible, anticipates student needs and provides opportunities for parent and student choice.

Innovative – The education system demonstrates leading-edge innovation for improved results.

Specifically, Goal 1: High Quality Learning Opportunities for All, strategies 1.4 and 1.5 speak to increasing online learning capacity in the province as follows:

- 1.4 Focus on using new technologies to increase program choice and access for students in rural communities.
- 1.5 Enrich and expand student learning opportunities through the continued implementation of the Learning and Technology Policy Framework, including the Alberta SuperNet, LearnAlberta.ca, technology standards and solutions, and related research.

These strategies also support the *Government of Alberta Strategic Business Plan (2005)*² in particular the following pillar of that plan:

Leading in Learning – focuses on making sure Albertans have the opportunities they need to learn, adapt and develop new knowledge and skills."

Further, the *Learning and Technology Policy Framework (2004)*³ and the document entitled *A Place to Grow: Alberta's Rural Development Strategy (February 2005)*⁴ provide direction for and emphasize the importance of e-learning in Alberta.

¹ See <http://www.education.gov.ab.ca/departement/businessplan/bp2005-08.pdf>

² See <http://www.finance.gov.ab.ca/publications/budget/budget2005/govbp.pdf>

³ See <http://education.gov.ab.ca/reading/policy/techframework/LTfwrk.pdf>

⁴ See <http://www.rural.gov.ab.ca/strategy/grow-feb2005.pdf>

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“**Learning and Technology Policy Framework** – focuses on providing direction, support and coordination for the effective use of technology to support learning delivery, knowledge and skill acquisition, learning system management, and research and innovation.”

“**Rural Development Strategy** – focuses on providing a framework that will encourage sustained growth in rural Alberta and create opportunities to foster vibrant communities.”

The Alberta Commission on Learning released its report entitled, *Every Child Learns, Every Child Succeeds: Report and Recommendations Alberta’s Commission on Learning*⁵ in October 2003. This report makes several recommendations related to learning and technology, with the goal to see technology integrated into all aspects of teaching and learning, and used wisely and effectively to improve results for students.

In addition to the statements highlighted above, aspects of *Alberta’s International Education Strategy (July 2001)*, the *First Nations, Métis, and Inuit Education Policy Framework (February 2002)*, the *Out-of-Province Online Learning Delivery by Alberta School Jurisdictions: A Discussion Paper (June 2004)*, and *The Renewed Funding Framework (2005/2006)* have significant impacts in terms of direction setting in the area of e-learning policy and legislation in Alberta. The influences of these documents are described in more detail in Section 5.

What guides e-learning in Alberta?

Several policies, legislative instruments, manuals, guides and handbooks inform the Kindergarten to Grade 12 community as they deliver educational programming in Alberta including: the *School Act* (revised June 2003), the *Funding Manual for School Authorities 2005-2006 School Year*, the *K-12 Learning System Policy, Regulations and Forms Manual*, the *Guide to Education 2005*, the *Guide to Education Planning and Results Reporting (April 2005)*, the *Guide to Charter School Education Planning and Results Reporting (May 2005)*, and the *Alternative Programs Handbook (2003)*. Each of these documents is regularly reviewed and updated; however, the degree to which they currently guide or “enable” e-learning in Alberta varies. The contents of these documents are described in more detail in Section 6.

Who is involved in e-learning in Alberta?

Concurrent with the formulation of strategic / business plans and policy frameworks, with the release of discussion papers, and with the updating of policies, legislation, funding manuals, handbooks, and guides to education, the Department and the K-12 community are actively pursuing aspects of e-learning.

The number of Alberta schools that offer courses online has now grown to over twenty. Included in that number are the Argyll Centre, Peace Academy of Virtual Education, Rocky View Virtual School and St. Gabriel Cyber School among others.

Another such school, the **Alberta Distance Learning Centre (ADLC)**, was formed in 1991 (<http://www.adlc.ca>). ADLC is a provincially-funded public school operating within Pembina Hills School Division. They deliver distance learning programs to English, Francophone and French Immersion students in Grades 1 to 12 in both print and online formats, serving students and schools throughout Alberta, the Northwest Territories, and Nunavut, as well as students around the globe who wish to pursue their education using the Alberta Program of Studies.

The **Alberta Online Consortium (AOC)** was established in 1998 (<http://www.ataoc.ca>) to support this growing trend. This consortium helped bring together Alberta school jurisdictions, with post-secondary, non-profit and corporate members as well as associate

⁵ See <http://www.education.gov.ab.ca/commission/PDF/CommissionReport.pdf>

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members from school districts across Canada. AOC recently announced a program called Sustainable, Usable, Customizable, Collaborative, Educational Service System (SUCCESS), which focuses on four key areas including content, professional development, research, and software. The consortium plans to offer this program throughout Canada and North America.

As further support of this trend, Alberta Education initiated the **LearnAlberta.ca** project which offers multimedia learning resources to teachers, students and parents (<http://www.learnalberta.ca>). These online resources are correlated to the Alberta programs of study. Resources are available in English only, French only, English and French, as well as Spanish and German (language availability is dependent upon the resource criteria). In conjunction with this project, Alberta Education is offering video streaming servers (called **Content Delivery Devices** (CDDs)) to all publicly-funded schools in Alberta, to better enable delivery of high-bandwidth video to the classroom. Publishers of educational resources are also moving in the direction of digital resource development including online resources. Educational video producers are considering, and in some cases, releasing their products in multiple formats (e.g., analog, digital, and streaming formats).

Alberta Education is leading several initiatives to better enable these activities. The **Technology Standards and Solutions** initiative uses a system-wide approach that includes the establishment of technology standards and, where appropriate, the implementation of standard solutions to address issues such as affordability, interoperability, equity, and sustainability. Alberta Education's **videoconferencing capacity initiative** began in early 2005 and ensures all jurisdictions can participate in and benefit from the video-conferencing community that currently exists. (More information about this initiative can be found at <http://www.education.gov.ab.ca/news/2005/February/nr-VideoConferencing.asp> and on the **VCAAlberta.ca** web site at <http://www.vcalberta.ca/>.) A **Research Working Group – Assessing the Impact of Technology on Learning** (<http://www.education.gov.ab.ca/techresearch/>) was also struck in late 2005. This group is comprised of researchers, thought leaders, policy-makers, and leading-edge educators to explore the phenomenon of determining technology's impact. Their purpose is to: develop common understandings of how the effective use of digital technologies can support the development of key learning skills required in the 21st century, and Identify potential metrics, models, or approaches that will demonstrate the impact of technology on student learning. In January 2006, Alberta Education, in collaboration with several school jurisdictions in the province, began planning a collaborative course development pilot project whereby distributed learning resources for Biology 20, Chemistry 20, and Physics 20 will be jointly developed and made available for online delivery in 2007 and repurposed for print-based delivery and classroom enhancement in 2008.

Further, through the Alberta **SuperNet**, the Government of Alberta provides subsidized high speed bandwidth and connectivity to Alberta schools (<http://www.albertasupernet.ca/>). Using video-conference initiatives, SuperNet extends the reach of both core and specialized courses in remote regions. Alberta Education provides SuperNet Services Funding, which covers the line charge costs for all publicly funded learning institutions, in order for them to have basic access to high speed networking. SuperNet has been established in 1,600 K-12 schools in 429 communities across the province. Almost all publicly funded schools in Alberta are connected to SuperNet. Applications include improved video-conferencing ability, enhanced access to online learning and teaching resources, and greater administrative efficiency at the school, jurisdiction and system level.

Through the **Western and Northern Canadian Protocol for Collaboration in Basic Education (WNCP)** (<http://www.wncp.ca/>), Alberta is working with B.C., Saskatchewan, Manitoba, the Northwest Territories, Yukon and Nunavut to develop, where appropriate,

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common curriculum frameworks and learning/teaching resources. Working groups have been established in the areas of Mathematics, Social Studies, English Language Arts, Aboriginal Languages and Cultures, International Languages, and Classroom Assessment. A working group on *Distance Learning and Technology* was also established with Alberta as lead province. However, as the WNCP has evolved, the infusion of technology in learning and the development of digital learning and teaching resources have been addressed in the context of individual subjects. WNCP *Common Curriculum Frameworks* do not require or endorse the use of specific technologies. The WNCP stipulates that while technology may be used as a teaching tool, learning outcomes must also be achievable without the use of technology. However, Calls for Resources typically invite the submission of print and/or digital resources.

Finally, Alberta Education is co-lead of the Council of Ministers of Education, Canada (CMEC) **Pan-Canadian Online Learning Portal** (<http://cmecportal.learning.gov.ab.ca>). Ministers of education unanimously recognized the importance of online learning to promote the successful participation of Canadians in today's rapidly changing economy. In the release of the *CMEC Vision Statement on Online Learning* in July 2001, ministers affirmed their view that education is a lifelong learning process and recognized the important educational role that digital and other media can play, together with more traditional delivery methods. When fully implemented, this bilingual portal will advance provincial/territorial leadership in e-learning and assist individual provinces and territories to develop e-learning capacity within their own jurisdictions.

These activities have occurred in an organic and somewhat non-linear way. Collectively, these activities constitute a fertile environment for e-learning.

5. Influential Frameworks, Reports, Strategies, and Discussion Papers in Alberta

The following documents have been identified as influential to the discussion of e-learning in the Kindergarten to Grade 12 community in Alberta. The purpose and impact of these documents are described below. Excerpts relevant to e-learning are provided.

1. *Learning and Technology Policy Framework (2004)*
2. *Every Child Learns Every Child Succeeds: Report and Recommendations Alberta's Commission on Learning (October 2003)*
3. *A Place to Grow: Alberta's Rural Development Strategy (February 2005)*
4. *Alberta's International Education Strategy (July 2001)*
5. *First Nations, Métis, and Inuit Education Policy Framework (February 2002)*
6. *Out-of-Province Online Learning Delivery by Alberta School Jurisdictions: A Discussion Paper (June 2004)*
7. *The Renewed Funding Framework (2005/2006)*

5.1 Learning and Technology Policy Framework (2004)

With its roots in the Campus Alberta concept (described as “a set of principles and a way in which the learning system works together to deliver seamless learning opportunities for Albertans”)⁶, the *Learning and Technology Policy Framework (2004)*⁷ identifies the vision, principles, goals, and policy directions for the infusion of technology within the education system. The scope of the *Framework* includes digital content development, learning delivery (e.g. online learning, blended classroom/online learning, use of learning technologies to enrich classroom learning), knowledge and skills acquisition, education system management, and innovation.

The *Framework* informs Ministry decisions by:

- ♦ ensuring that investment in technology is consistent with learning system objectives/priorities and optimizes benefits to learners
- ♦ establishing a context for the assessment of trends, needs, best practices, and new initiatives
- ♦ clarifying Ministry and stakeholder roles in the area of technology.

The *Framework* defines online learning as follows:

“Online learning involves the use of Internet-based technologies to deliver instruction, access learning resources, and facilitate communication among learners and educators for both face-to-face and distance learning.”

The goals articulated on page 8 of the *Framework* provide direction for the use of technology and support the achievement of Alberta learning system objectives: The three goals excerpted below relate specifically to the area of e-learning:

1. Access to quality learning opportunities is expanded

The use of ICT reduces geographical and time constraints, enabling Albertans to access new learning opportunities across the province and around the world. Technology is beneficial in increasing learning options for rural Albertans and reducing barriers to learning for people with disabilities. Stakeholders will have the tools to identify quality online learning opportunities.

2. Learning is enriched

⁶ See <http://www.education.gov.ab.ca/pubstats/CampusPolicy/CampusAlbertFramework.pdf>

⁷ See <http://education.gov.ab.ca/reading/policy/techframework/LTfwrk.pdf>

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The availability of the Internet and sophisticated multimedia tools is changing approaches to learning delivery – in the classroom, in distance learning, and in other learning contexts. ICT provides new ways to present information and illustrate concepts, and provides educators and learners with access to a broad array of learning resources. It offers learners new approaches to demonstrate their learning. It also facilitates the development of diverse, global learning communities and promotes information sharing and dialogue among learners and educators.

7. Markets for learning programs, resources and services are expanded

As part of the International Education Strategy, Alberta learning providers will obtain access to worldwide markets for their programs and services. Alberta will be recognized as an international leader in online learning. In addition, innovative technologies, applications, and resources will enhance Alberta's presence in international markets.

Policy directions, rationales, outcomes, and current and potential new actions are identified for ten learning and technology dimensions within the *Framework*. E-learning spans all of these dimensions. Key policy directions, outcomes and actions of all dimensions are described in Table 1 below as they apply to e-learning. In some cases, the actions described below have been updated since the release of the *Framework*.

Table 1: Key Policy Directions Learning and Technology Policy Framework, 2004

<p>1. Research, <i>Policy Direction</i>, Research will inform decisions about the use of technology for learning.</p> <p><i>Current Activities/Actions</i></p> <ul style="list-style-type: none">♦ The cross-divisional Learning and Technology Research Steering Committee was established to provide advice, direction, and assistance to the Learning and Technology Research office in coordinating and rationalizing ministry involvement in learning and technology research activities. Through linkages with stakeholders, this inter-divisional committee serves as a mechanism within Alberta Education for planning, knowledge sharing, and collaborative action on research that supports the goals of the Learning and Technology Policy Framework.♦ A Research Working Group – Assessing the Impact of Technology on Learning (http://www.education.gov.ab.ca/techresearch/) was struck in late 2005. This group is comprised of researchers, thought leaders, policy-makers, and leading-edge educators to explore the phenomenon of determining technology's impact. Their purpose is to: develop common understandings of how the effective use of digital technologies can support the development of key learning skills required in the 21st century, and identify potential metrics, models, or approaches that will demonstrate the impact of technology on student learning.♦ Alberta is participating in SITES 2006, an initiative of the International Association for the Evaluation of Educational Achievement (IEA). SITES (Second Information Technology in Education Studies) 2006, is the third international comparative study on the use of ICT in teaching and learning. The study, directed to principals, Gr. 8 Mathematics and Science teachers, and technology coordinators – including personnel in approximately 400 Alberta schools – will provide (i) international comparisons of various indicators, (ii) ICT in education policy recommendations and (iii) in depth analysis of the way in which ICT is impacting teaching and learning processes.♦ Alberta Education has implemented a two-phase research project on developing an Internet Protocol Video-conferencing Community of Practice. Phase 1, which is nearing completion, involved pilot projects in five school divisions (Edmonton Public Schools, Fort Vermilion Division No. 52, Grande Yellowhead Regional Division No. 35, Prairie Rose Regional Division No. 8, and Red Deer Catholic Regional Division No. 39. Athabasca University, the University of Lethbridge, and the Galileo Educational Network collaborated

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with participants to identify successful practices. Findings from this research will be released in spring 2006. During Phase 2, the Galileo Educational Network will explore how videoconferencing may be used for professional development and strategies for developing communities of practice.

2. **Infrastructure, Policy Direction**, A province-wide learning network, supported by provincial technology standards and solutions, will be developed.

Outcomes, improved ability to share resources and increase access to learning opportunities and information by learners, educators, parents, and employers.

Current Activities/Actions

- ◆ The **Alberta SuperNet**, the province's high-speed broadband network, is now operational in 429 Alberta communities (including all schools, post-secondary institutions, and libraries). This initiative will significantly increase capacity to use learning technologies (e.g. online learning, digital learning resources, video-conferencing) and networked applications. It will also enhance research in a number of sectors and help facilitate the formation of the learning communities.
- ◆ A **Technology Standards and Solutions** program office was established in 2003 to work with stakeholders to: 1. implement province-wide technical standards to facilitate the interoperability of systems and support the exchange of data, files, information, content and resources across the learning system; 2. achieve economies of scale through the licensing and procurement of technologies, applications, and supports with system-wide merit, 3. develop a long-term strategic plan to address learning system technology infrastructure needs. Approximately nine technology standards have been implemented to date, including: digital learning object metadata, digital multi-media players and plug-ins, public internet protocol (IP) addresses, and a videoconference protocol. Completed technology solutions include: the Alberta SuperNet customer edge device (CED), the LearnAlberta.ca content delivery device (CDD), and the provincial Microsoft licensing (PML).
- ◆ Alberta Education has invested approximately \$4 million toward the development of **provincial video-conferencing capacity**, with each school jurisdiction receiving \$60,000 in funding this school year to establish a minimum of two video-conferencing locations or to expand their current video-conferencing activities.
- ◆ Alberta Education is working with the **Keewatin Career Development Corporation** (KCDC), the regional management organization for First Nations SchoolNet, to ensure that on-reserve First Nations Schools have access to the Alberta SuperNet and high-speed Internet. KCDC is also responsible for updating hardware and software applications. Recent acquisitions include 25 videoconferencing suites for Alberta on-reserve schools.
- ◆ The Ministry is developing a **Learning Technology Management System** (LTMS) to facilitate data collection on technology inventories and needs.
- ◆ The Government of Alberta is consolidating responsibility for **School Infrastructure** within Alberta Education, including leadership on new construction, modernization and preservation projects.

3. **Digital Content, Policy Direction**, Learners, parents and educators will have access to quality digital content to support a range of learning activities.

Current Activities/Actions

- ◆ **LearnAlberta.ca** is Alberta's online repository of multimedia learning resources that are correlated to Alberta's K-12 Program of Studies. In addition to the thousands of resources that are already part of the repository, current development includes the K-3 social studies online guide to implementation, concept lessons in Mathematics, elementary Social Studies

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resources, grade 9 science e-textbook units on space exploration and electrical principles and technologies, chemistry 20-30 resources, and knowledge and employability resources.

- ◆ Alberta Education is providing a conditional grant to the Federation of Francophone Schools and Coordinating Councils of Alberta (FCSCCA) toward the establishment of a **French virtual school**. The FCSCCA is apparently working with the Alberta Distance Learning Centre to develop supporting digital learning resources.
- ◆ A **Memorandum Of Understanding between Alberta/B.C. on E-Learning** is in place, but the provinces have yet to agree on initiatives for collaboration.
- ◆ Through the Council of Ministers of Education, Canada (CMEC), continue to work with other provincial/territorial jurisdictions to further develop the **Pan-Canadian Online Learning Portal**.
- ◆ The Legislative Services branch of the Ministry has established a cross-divisional advisory group to develop **Intellectual Property Policy** to guide the activities of the Ministry and school jurisdictions.

4. **Learning Outcomes, Policy Direction**, Technology will be used to improve learners' success and prepare them to participate in a knowledge-based and technologically advanced society.

Outcomes, 1. increased volume of quality digital content for stakeholder use, 2. digital content is developed/acquired in ways that enable it to be shared and adapted, where appropriate, for multiple purposes, 3. learning programs may be customized to address individual learner need, 4. copyright and intellectual property rights of content owners/developers are protected, and 5. optimized access to digital content developed/acquired with taxpayer dollars.

Current Activities/Actions

- ◆ Alberta Education is developing **computer adaptive assessment** items in English language arts, mathematics, science and social studies across the grades. Computer adaptive assessment measures individual achievement through the use of computer-based test items that vary in difficulty according to the student's success in answering the previous question. This essentially enables a test to be 'tailored' to the student's range of knowledge and may provide supplemental information on individual student achievement and learning needs.
- ◆ The Information and Communication Technology Program of Studies infuses technology concepts and skills into core subjects of the Alberta kindergarten to grade 12 school curriculum to ensure that learners enter post-secondary programs and the workforce with the knowledge and skills to participate in and fully benefit from technology-related opportunities.
- ◆ The *ICT Classroom Assessment Tool Kit* provides a support framework for determining student competencies in the ICT outcomes within core subjects and courses. Sample assessment tasks are provided in the subject areas of language arts, mathematics, science and social studies for grade 3, grade 6, grade 9 and 20- and 23-level courses.
- ◆ Alberta's Initiative for School Improvement (AISI) provides funding to school authorities to support specific local initiatives and research to improve student learning and performance. Many of these projects focus on technology integration.
- ◆ K-12 ICT outcomes are being infused into K-12 programs of studies.

5. **Professional Growth, Policy Direction**, Educators will develop the necessary knowledge, skills, and attributes to use technology effectively to support learning and teaching.

Outcomes, 1. educators are well prepared to use technologies effectively for teaching and learning, 2. educators have the capacity to make informed choices about the meaningful

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application of emerging technologies throughout their careers.

Current Activities/Actions

- ◆ Technology integration professional development continues to be delivered through a number of organizations such as the Alberta Online Consortium, the Galileo Educational Network, the TELUS Learning Connection, and the Alberta Regional Consortia. The Ministry also facilitates professional development through mechanisms such as Jurisdiction Technology Contacts events, video-conferencing seminars, and the Learning and Technology website (www.lnt.ca).
- ◆ Alberta Education has established the VCAAlberta.ca website to facilitate the development of a video-conferencing community and provide online resources and effective practices for teachers, administrators and technical staff. In addition, a series of videos is being produced to support teacher professional development in the area of video-conferencing.
- ◆ Alberta Education is working with the Northern Alberta Institute of Technology (NAIT) to establish a video-conferencing course as part of the SuperNet technical training program.

6. **Learning Delivery, Policy Direction,** The learning system will use a variety of learning delivery modes to provide flexible learning options for Albertans.

Outcomes, (a) learning excellence is promoted across all modes of delivery in the learning system, (b) diversity of choice within Alberta's learning system is maintained, (c) learners, parents, employers, and educators are able to identify and access online learning programs that are recognized and meet quality expectations, (d) Alberta is recognized as an international leader in online learning, (e) the integrity of government-owned curriculum and credentials is preserved

Current Activity/Action

- The Ministry has developed a draft *Out-of-Province Online Learning Delivery Policy Framework* to enable Ministry-approved Alberta school jurisdictions to deliver online learning programs and services to non-Alberta students while maintaining Alberta's reputation for high-quality education programs and protection the rights of individual provinces, states, and countries to control the education of their resident students. The draft Framework will be finalized in spring 2006. Implementation of draft Policy Framework will be piloted by a small number of Alberta school jurisdictions to further assess the feasibility of out-of-province online learning delivery.
- Alberta Education, with Alberta Aboriginal Affairs and Northern Development, Alberta Human Resources and Employment, and Indian and Northern Affairs Canada, co-funded a Conference Board of Canada evaluation of the Sunchild E-Learning Community. The recently-completed evaluation assesses the Sunchild e-learning model and identifies areas for further development.

7. **Learning Supports, Policy Direction,** Learners, parents, educators, and employers will have the tools to identify, assess, and successfully participate in technology-enriched learning opportunities that meet their needs.

Outcomes, 1. learners have the necessary information, learning and technical supports to support their learning needs, 2. technology is not a barrier to learners with special needs, 3. expanded designation of quality online learning programs for student financial assistance purposes, and 4. credentials obtained from quality online learning programs are recognized by learners, learning providers, employers, and professional organizations.

Current Activities/Actions

- Alberta Education is exploring the feasibility of systematically designing curriculum

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(programs of study, learning resources and classroom assessment) so that it accommodates all students, including those with disabilities. Incorporation of this approach in the development and implementation of curriculum, learning resources and classroom assessment will enable teachers to better respond to the diverse backgrounds of students.

- The Alberta Library (TAL) is a province-wide consortium of public, university, college, technical institute, and special libraries that works collaboratively to promote universal, barrier-free access to the materials and resources in Alberta's libraries. With the Alberta Library Card, users are able to take out books from over 240 libraries across the province. This service is supported by a province-wide search engine and joint database licencing to provide more electronic information to small and medium-sized libraries.
 - Students and educators may now access the combined collections of over 300 Alberta public libraries through the Alberta Public Library Electronic Network (APLEN), a collaborative initiative of the Government of Alberta and a province-wide consortium of university, college, public and special libraries and library organizations.
 - The Alberta Learning Information Service (ALIS) is Alberta's gateway for career, learning and employment information services. Features include career planning and job search assistance, occupational profiles, labour market information, databases and links to Alberta post-secondary programs and institutions, online applications for admission to post-secondary institutions and for student financial assistance, and apprenticeship and industry training information.

8. **Technology Planning and Funding, Policy Direction**, Funding for technology, supported by accountability measures, will be integrated into base funding for publicly-funded school jurisdictions and post-secondary institutions.

Outcomes, 1. funding for the delivery of online learning programs is equitable across the learning system, 2. Ministry investment in stakeholder learning and technology initiatives is needs-based, focuses on deliverable products and services, and involves fair and open business practices, 3. technology is viewed as an integrated component of the learning system, 4. the vision for the use of technology for learning is advanced across the learning system, 5. the coordination of learning and technology activity across the learning system is improved, and 6. Ministry and stakeholder roles with respect to learning and technology are clarified.

Current Activity/Action

- ♦ With the exception of monthly SuperNet connection fees, funding for technology is now integrated in to base funding for school jurisdictions.
- ♦ Alberta Education consults with and facilitates dialogue among learning stakeholders to identify best practices and address common objectives relating to the implementation of ICT for learning:
 - The Stakeholder Technology Advisory Committee (STAC) is a forum for K-12 stakeholders to provide pedagogical advice on Ministry technology initiatives and to raise issues related to technology implementation in the education system. Members include representatives from school jurisdictions, university faculties of education, the College of Alberta School Superintendents (CASS), the Alberta School Boards Association (ASBA), The Alberta Teachers' Association (ATA), and Alberta Learning.
 - The K-12 Technology Advisory Group (TAG) is a forum for K-12 stakeholders to provide technical advice to Alberta Education and raise issues related to integration of technology in the learning system. Members include technology leaders and experts from K-12 school jurisdictions and Alberta Learning.
- ♦ The Technology Planning Listserv is an online discussion group of Alberta education stakeholders who are interested in the technology integration issues. Participants are

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<p>encouraged to share knowledge and expertise and inform others of developments in their area.</p> <ul style="list-style-type: none">♦ The Learning and Technology Web site provides K-12 stakeholders with Ministry learning and technology-related information into one easy-to-navigate location.
<p>9. Learning Information Systems, Policy Direction, Learning information systems and data collection will be efficient and effectively support learning system management.</p> <p><i>Outcomes</i>, 1. learning information systems and data collection processes are efficient and coordinated, and 2. quality data is available, as appropriate, to inform planning and accountability across the learning system</p> <p><i>Current Activity/Action</i></p> <ul style="list-style-type: none">♦ Alberta Education has established a Provincial Approach to Student Information (PASI) working group to work with stakeholders to explore efficient, integrated student information systems for the education system.
<p>10. Innovation, Policy Direction, ICT will be used to enhance collaboration and innovation in Alberta's research community.</p> <p><i>Outcomes</i>, 1. research capability is enhanced, 2. collaboration within the research community is improved, and 3. new technologies, products, processes, services and learning delivery mechanisms enhance the quality of Alberta's learning system and, where appropriate, may be commercialized.</p>

5.2 *Every Child Learns Every Child Succeeds: Report and Recommendations Alberta's Commission on Learning (October 2003)*

The Alberta Commission on Learning (ACOL) released its report entitled, *Every Child Learns, Every Child Succeeds: Report and Recommendations Alberta's Commission on Learning* in October 2003⁸.

This final report highlights:

- ♦ an extensive consultation process;
- ♦ the views from countless individuals and organizations; and
- ♦ a comprehensive review of research on topics related to the Commission's mandate.

It challenges Albertans to imagine the province in ten or more years, and to think of the kinds of skills, knowledge, programs and supports children will need to succeed in the future. The *Report* presents these challenges in the form of several recommendations.

Although several other recommendations relate indirectly to e-learning, the recommendations from the "Technology Plus" section on page 13 of the *Report* speak most directly to desired directions in e-learning in Alberta, and are therefore critical when formulating related policies and legislation. Recommendation 66 is particularly relevant.

The entire "Technology Plus" section has been excerpted below for reference:

Technology plus

⁸ See <http://www.education.gov.ab.ca/commission/PDF/CommissionReport.pdf>

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Technology affects virtually every aspect of our lives and it is changing how people live, how they work and how they learn. We've called this section "Technology plus" because it's not enough to simply have computers in schools. Technology has to be integrated into all aspects of teaching and learning and used wisely and effectively to improve results for students.

Recommendations

Learn with technology not about technology

61. Implement the proposed Learning and Technology Policy Framework and fully integrate the use of technology in every classroom in the province over the next five years.

62. Set province-wide standards for the types of technology that should be available in every classroom.

63. Expect principals to provide proactive leadership in integrating technology in both the instructional and administrative aspects of the school.

Prepare teachers for integrating technology

64. Require all teachers to be proficient in the integrated use of technology and ensure that they have the necessary support in the classroom.

65. Model the appropriate application of technology in all teacher preparation programs and provide adequate, ongoing professional development.

Use technology to improve access

66. Expand the use of technology to improve access to education programs and related services in rural and remote communities.

Provide adequate support

67. Provide adequate funding not only for the purchase of hardware and software but also for necessary technical support, training, and continuous upgrading of equipment.

68. Regularly assess the effectiveness of new technology and applications and provide advice to school boards to guide their decisions about the purchase of new technology.

Note: The information above was retrieved Jan 9th, 2006.

Alberta Education has reviewed all of the recommendations. Funding in the amount of \$42.2 million has been committed to address recommendations 62, 66 and 67 (i.e., to phase in implementation of proposed technology standards and expand access to technology in schools). For additional information on funding support for ACOL see <http://www.education.gov.ab.ca/commission/ACOLProgress.asp>.

5.3 A Place to Grow: Alberta's Rural Development Strategy (February 2005)

The *Rural Development Strategy*⁹ builds on work done to date, especially the extensive consultations undertaken by the MLA Steering Committee for Rural Development. It begins with the following strong commitment:

"The Government of Alberta officially recognizes the importance of rural Alberta and its contributions to the Alberta Advantage and is committed to work together with rural communities and rural Albertans to foster a vibrant and sustainable rural Alberta. "

As part of this commitment, the Government states that it will strive to:

"Foster learning in rural Alberta by making sure new opportunities are available for rural Albertans to learn, adapt and develop new knowledge and skills essential for economic development."

⁹ See <http://www.rural.gov.ab.ca/strategy/grow-feb2005.pdf>

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The *Rural Development Strategy* stresses that more needs to be done to address the unique needs of rural students.

“Rural school boards should be encouraged to work together, to share schools and resources wherever possible, and to work with community groups and agencies to establish schools as a hub of services for children. More needs to be done to attract and retain qualified teachers and to make the most use of the latest teaching and learning technologies to improve access to the curriculum and related resources.”

To this end, a new Minister’s Advisory Committee on Small and Rural School Programming has been established. One of their top priorities is to support the implementation of LearnAlberta.ca, including expanded use of technology to improve access, teaching and learning in rural communities.

Although beyond the scope of the Kindergarten to Grade 12 sector, the *Rural Development Strategy* articulates actions related to the use of distance learning technology, satellite programs and other innovative approaches to provide trades training (e.g. electricians, construction trades, etc.) in rural communities.

It is believed that each of the preceding statements provides direction to Alberta’s learning community in terms of expanding online or e-learning opportunities.

5.4 Alberta’s International Education Strategy (July 2001)

In the fall of 2000 Alberta Learning consulted with stakeholders to develop *Alberta’s International Education Strategy (July 2001)*¹⁰. This *Strategy* establishes the following vision for the internationalization of Alberta’s learning system:

“Alberta will be internationally recognized as a leading provider of education, skill development and industry training, and Albertans will be well-prepared for their role in the global marketplace and as global citizens.”

The objectives of the *Strategy* include:

- ♦ improving Albertans’ understanding of global economic, political, and social systems;
- ♦ assisting Albertans to develop global competencies (e.g. second language skills) and to participate in international learning opportunities;
- ♦ promoting Alberta to international learners and learning systems as the provider of choice for their learning and accreditation needs;
- ♦ increasing Alberta’s competitiveness in supplying education programs and services in international markets;
- ♦ facilitating international mobility of knowledge and skills; and
- ♦ fostering international investment and trade of other Alberta goods and services.

Actions for further development are included in the Appendix to this *Strategy*. The *Strategy* also states the Minister’s commitment to ongoing consultation with all stakeholders as the *Strategy* is developed and implemented.

The *Learning and Technology Policy Framework* (Goal 7: “Markets for learning programs, resources, and services are expanded.”) supports the achievement of *Strategy* objectives. With respect to online learning, Alberta school jurisdictions currently serve Alberta and non-Alberta students residing within the province, as well as Albertans temporarily living out of province. Some Alberta school jurisdictions are also seeking to deliver online learning to non-Alberta students in other provinces/ territories/countries. As mentioned earlier, a draft

¹⁰ See <http://www.education.gov.ab.ca/IntlEd/IntlEdStrat.pdf>

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Out-of-Province Online Learning Delivery Policy Framework has been developed to guide such activity.

An international education business plan, identifying priorities and actions for the next three years, is under development.

5.5 First Nations, Métis, and Inuit Education Policy Framework (February 2002)

The *FNMI Policy Framework*¹¹ was designed to help stakeholders identify their role in helping First Nations, Métis and Inuit learners achieve their educational goals, as well as guide planning and evaluation of FNMI learner programming. A key outcome of the *FNMI Policy Framework* is to improve First Nations, Métis and Inuit learner success in Early Childhood Services to Grade 12. As such, it is a critical document to reference as policies and legislation related to e-learning in Alberta are developed.

5.6 Out-of-Province Online Learning Delivery by Alberta School Jurisdictions: A Discussion Paper (June 2004)

The discussion paper entitled, *Out-of-Province Online Learning Delivery by Alberta School Jurisdictions (June 2004)*¹² invited Alberta Education's stakeholders to give their opinions on a proposed policy on out-of-province online learning delivery by Alberta school jurisdictions.

Section A of the paper provided some background information on the issue. Section B identified key elements of the proposed Alberta Education policy. For each proposed policy direction, a rationale was given, followed by a space to indicate stakeholder views. Policy directions were proposed in eight categories as captured in Table 2 below.

From the stakeholder feedback on the *Discussion Paper*, Alberta Education has developed a draft *Out-of-Province Online Learning Delivery Policy Framework* to guide the activities of Alberta school jurisdictions seeking to deliver online learning programs and services to out-of-province students. Risk mitigation measures will be implemented to ensure the quality, integrity and reputation of the education system and government-owned curriculum, standards and credentials. Rights of individual provinces, states, and countries to control the education of their resident students will be respected.

Stakeholder consultations have yielded substantial support for the draft *Framework*, which is being 'finalized' with a goal of implementation in 2006. A limited number of stakeholder initiatives will then be piloted to further assess the feasibility of Alberta involvement in out-of-province online learning delivery and the effectiveness of the draft *Framework*.

Table 2: Proposed OOP Policy Directions

Category	Proposed Policy Direction
Learning System Priorities	Alberta school jurisdictions shall ensure that, before engaging in out-of-province online learning delivery, they first meet the learning needs of Albertans and non-Albertans residing in Alberta.
Rationale for Out-of-Province Online Learning Delivery	Out-of-province delivery of online learning programs and services shall enhance the internationalization of Alberta's learning system and curriculum and promote provincial/territorial cooperation.

¹¹ See <http://www.education.gov.ab.ca/nativeed/nativepolicy/pdfs/Framework.pdf>

¹² See <http://www.education.gov.ab.ca/jpr/OutOfProv/DiscPaper.pdf>

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Category	Proposed Policy Direction
Authorization and Legal Requirements	<p>Alberta school jurisdictions shall deliver out-of-province online learning programs and services only in those jurisdictions with which Alberta [Education] has established a Memorandum of Understanding.</p> <p>Alberta school jurisdictions shall obtain written approval from the Minister prior to entering into any agreements for the delivery of out-of-province online learning programs and services.</p> <p>Alberta school jurisdictions must ensure that they comply with the provincial, national, and international laws and regulations that apply to out-of-province online learning delivery, including the laws of the jurisdictions in which out-of-province online learners reside.</p>
Quality Instruction and Learning Outcomes	<p>The quality of out-of-province online learning instruction shall meet Ministry-approved standards.</p> <p>Alberta learning assessment standards shall be maintained and course completion rates shall meet acceptable levels.</p> <p>Rigorous security protocols shall be used for examinations.</p>
Intellectual Property	<p>Ownership of intellectual property shall be recognized.</p> <p>The Government of Alberta shall receive a licensing fee for any Crown-owned intellectual property that is used.</p>
Out-of-Province Online Learning Delivery Costs	<p>The out-of-province delivery of online learning courses and services shall be cost neutral.</p> <p>The Government of Alberta shall be reimbursed for any direct costs incurred in support of out-of-province online learning delivery.</p> <p>Alberta school jurisdictions shall effectively use available resources.</p>
Scope of Out-of-Province Online Learning Delivery	<p>Initially, out-of-province online learning delivery shall primarily focus on the Alberta K-12 Programs of Study.</p> <p>The languages of instruction for out-of-province online learning courses are English and French.</p>
Reporting	<p>School jurisdictions shall fully report all out-of-province online learning activity to the Ministry.</p>
Legislation	<p>The School Act shall be reviewed to determine whether amendments are needed with respect to out-of-province online learning matters.</p>

Note: The information above was retrieved Jan 9th, 2006.

5.7 Renewed Funding Framework (2005/2006)

Alberta's funding distribution model is a method of allocating funds to school jurisdictions that allows boards to provide a quality education that reflects the needs of their local students and constituents. The foundation of the *Renewed Funding Framework*¹³ is based on 3 pillars:

¹³ See <http://www.education.gov.ab.ca/news/2004/March/nr-FundingFramework.asp>

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flexibility, funding and accountability. Funding is distributed to boards in three categories: Base funding, Differential Cost funding, and Provincial Priority funding. One-time funding for video-conferencing and technology support was provided in 2005/2006. Provincial priority funding for high speed networking (SuperNet) access is also provided.

Although this targeted funding supports school authorities engaging in e-learning, the *Renewed Funding Framework* also recognizes that each jurisdiction is unique and therefore provides funding formulas that address the significant differential cost factors that are beyond the control of school boards as well as provides the flexibility school boards require to use their funds in a manner that best meets their needs.

Therefore, this *Framework* has the potential to provide schools boards involved in or considering e-learning some flexibility in how to spend their funding. Key to the success of this flexibility will be the alignment of related policies and legislation.

Note: The *Renewed Funding Framework (2005/2006)* provides an overview only. Full details are outlined in the *Funding Manual for School Authorities 2005/2006 School Year*.

6. Related Policies, Legislation, Manuals, Guides and Handbooks in Alberta

The following policies, legislation documents, manuals, guides and handbooks have been identified as relevant to e-learning in the Kindergarten to Grade 12 community in Alberta. The purpose of these documents is described, and the content relevant to e-learning is examined. Excerpts relevant to e-learning are provided.

1. *School Act* (revised June 2003)
2. *Funding Manual for School Authorities 2005-2006 School Year*
3. *K-12 Learning System Policy, Regulations and Forms Manual*
4. *Guide to Education 2005*
5. *Guide to Education Planning and Results Reporting (April 2005) and the Guide to Charter School Education Planning and Results Reporting (May 2005)*
6. *Alternative Programs Handbook - 2003*

6.1 *School Act (revised 2000, with amendments June 2003)*

The *School Act*¹⁴ primarily sets out the services provided by the department. The School Act obligates and authorizes the Minister to carry out a number of functions forming Alberta's education system including:

- ♦ establishing public and separate school districts;
- ♦ establishing Francophone Education Regions and provide appropriate materials and support;
- ♦ registering, accrediting and monitoring private schools;
- ♦ prescribing courses of study or education programs;
- ♦ establishing and monitoring charter schools; and
- ♦ reviewing and monitoring financial affairs of all school boards, charter schools, private schools and private ECS operators being funded by the Department.

These obligations are described in sections 1 through 11 as outlined below:

- ♦ Part 1 Students
- ♦ Part 2 Schools
- ♦ Part 3 School Boards
- ♦ Part 4 Employment
- ♦ Part 5 Appeals
- ♦ Part 6 Finance
- ♦ Part 7 Property
- ♦ Part 8 Creation, Dissolution and Alteration of Districts, Divisions and Boards
- ♦ Part 9 Establishment and Dissolution of Francophone Education Regions
- ♦ Part 10 General
- ♦ Part 11 Transitional

The *School Act* created a significant opportunity for e-learning that enabled Alberta school authorities to create schools that were not tied to a "bricks and mortar" concept. The School Act gives the term "school" a definition that relates to a process.

1(1) (y) "school" means a structured learning environment through which an education program is offered to a student by,

- a. a board,
- b. an operator of a private school

¹⁴ See <http://www.qp.gov.ab.ca/documents/Acts/s03.cfm>

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- c. an early childhood services program private operator
- d. a parent giving a home education program, or
- e. the Minister

Despite the openness of this definition of school, some of the wording in the *School Act* implies “bricks and mortar” schools and traditional face-to-face teaching philosophies and learning environments (e.g., stipulating hours of instruction, stipulating compulsory attendance at a school building, and requiring maintenance of attendance records, “attend school... punctually”, “on a day on which the school is open”, etc.). Although this use of language is understandably necessary for clarity of the act, it may not allow for the flexibility, and may in fact, hinder or, at the very least, confuse those involved in or considering the development of e-learning programming in Alberta. Four specific examples of language use are cited below in Table 3. Bold italics have been used to highlight the words or phrases that imply traditional teaching philosophies and learning environments.

School attendance by e-learning students may range along a continuum from exclusively online to entirely face-to-face with some blend of in-school and virtual attendance possible. In addition, students may be registered in more than one school/region depending on their desired program and the availability of courses within their home school/region. Given these circumstances, it is important that the terms and definitions in the examples below be interpreted in the broadest sense.

The *Act* does provide schools with the opportunity to provide “alternative programs” that “use a particular teaching philosophy”. Many schools have implemented online learning within this definition.

Table 3: Examples of Language Used in Alberta’s School Act

<p>Example 1: Use of the Terms School and School Building</p> <p>Although school is broadly defined in the act (see above), Section 1(1) (z) below defines school building as follows:</p> <p>“School building” means a <i>building</i> used for the instruction or accommodation of students that is <i>owned or occupied</i> by</p> <ul style="list-style-type: none">(i) a school jurisdiction,(ii) a school jurisdiction and a municipality, or(iii) a school jurisdiction and another person <p>The language used in the following definitions could be interpreted as students being required to be present at a “school building” rather than attending the more openly-defined “school”. The broader interpretation supports an e-learning context.</p> <p>Section 1(1) (gg) “student” means an individual who is</p> <ul style="list-style-type: none">(i) enrolled in a school, or(ii) required under section 13 <i>to attend school</i>; <p>Section 13 Compulsory education, subsections (1) and (5)</p> <p>(1) An individual who</p> <ul style="list-style-type: none">(a) is eligible to be enrolled in a school,(b) at September 1 in a year is 6 years of age or older, and(c) is younger than 16 years of age, <p><i>shall attend school.</i></p> <p>(5) Notwithstanding subsection (1), a student <i>is excused from attending school on a day on which the school is open if</i></p> <ul style="list-style-type: none">(a) the student is unable to attend by reason of sickness or other unavoidable cause,(b) the day is recognized as a religious holiday by the religious denomination to which the

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- student belongs,
- (c) the principal of the school has suspended the student from school and the suspension is still in effect,
 - (d) the student has been expelled from a school and has not been given permission to enrol in another school, or
 - (e) the board or, if the student is enrolled in a private school or resides in an unorganized territory, the Minister
 - i. determines that the parent of the student has shown sufficient cause as to why the student should not be required to attend school, and
 - ii. excuses the student from attending school for a prescribed period of time.

Example 2: Attendance

With respect to attendance, section 60(3) of the Act states that “the board may make rules respecting the attendance of students” at schools. This wording suggests the flexibility needed by school boards regarding attendance in e-learning environments. Although “time logged in” can be monitored for each student, attendance in e-learning environments may not be reported or recorded. The emphasis is on student learning and completion of assignments rather than seat time.

The Credit Enrolment Unit (CEU) reporting requirements, as stated in the December 2005 issue of the *CEU Monitoring Branch Bulletin*, indicate that “It is important to maintain detailed attendance information. The introduction (6c) to the *Funding Manual for School Authorities 2005/2006 School Year* states that a record of the daily attendance of each enrolled student must be maintained.” In Table 4 below it states that attendance funding criteria may not apply to online students and that funding is to be based on a student’s final mark (see p 3, Section 1.2 (Base Instruction), (b), (i) and (ii)). It would appear therefore, that accurate attendance records may not be required for students involved in online courses, but accurate assessment records are required.

Example 3: Hours of Instruction

In section 39(1), with respect to courses and programs, the Minister may do the following:

- (a) prescribe courses of study or education programs, including the *amount of instruction time*;
- (b) authorize courses of study, education programs or instructional materials *for use in schools*;
- (c) prescribe the *minimum total hours of instruction* a board shall make available to a student in a school year;
- (d) approve any course, education program or instructional material that may be submitted to the Minister by a board or another operator *of a school for use in a school*;
- (e) subject to the right of a board to provide religious instruction, by order prohibit the use of a course, an education program or instructional material in schools;
- (f) by order adopt or approve goals and standards applicable to the provision of education in Alberta.

Hours of instruction typically suggest face-to-face contact or at least synchronous interaction between teacher and student. In e-learning environments, the majority of student-teacher interaction is not synchronous, therefore prescribed hours of instruction may not be an appropriate prescription. As mentioned earlier, the Credit Enrolment Unit (CEU) reporting requirements must align themselves appropriately to any modifications of the wording of the *Act* related to hours of instruction.

Example 4: Flexibility to Develop, Acquire and/or Deliver Courses

In this example, the act provides boards with the flexibility they need to develop, acquire and/or deliver online courses and instructional materials. This will be important as districts attempt to reduce duplication of effort in these areas. In section 60(2), Powers of boards, a board may:

- (a) subject to section 39 and the regulations, develop, acquire or offer courses or programs;
- (b) subject to section 39 and the regulations, develop or acquire instructional materials for use in

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programs or in schools

Similarly, the flexibility needed to enter agreements with other boards in the development or acquisition of courses or instructional materials is covered in section 62(1), Agreements, where it is stated that a board may enter into an agreement with

- (i) a person, or
- (ii) a joint committee established under section 63, respecting the provision of educational, managerial or other services with respect to the operation of schools;
- (a) with respect to its resident students, enter into an agreement with another board or person to provide education programs;
- (b) enter into an agreement with another board, a non-profit organization or a municipality concerning the promotion and development of recreation and community services.

Further, the flexibility needed to enter agreements with other levels of government across Canada in the development, acquisition and or delivery of courses or instructional materials is covered in section 62(2), Agreements, where it is stated that a board may, with the prior approval of the Minister, enter into an agreement with

enter into an agreement with

- (a) the Government of Alberta or any agent of the Government of Alberta,
 - (b) the Government of Canada or any agent of the Government of Canada, or
 - (c) the government of any other jurisdiction or any agent of a government of any other jurisdiction,
- respecting the provision of educational services;
- (d) enter into an agreement with the Government of Canada or any agency of the Government of Canada with respect to the education of Indian children, or the children of members of the Canadian Forces or of other persons employed by the Government of Canada, in a school operated by a board;
 - (e) enter into an agreement with a council of a band as defined in the *Indian Act* (Canada) with respect to the education of Indian children;
 - (f) enter into an agreement with an organization representing the residents of an unorganized territory for the provision of educational services by the board.

Note: The information above was retrieved Jan 9th, 2006.

6.2 Funding Manual for School Authorities 2005-2006 School Year

The *Funding Manual for School Authorities*¹⁵ is released by Alberta Education for the use of central office administrators, school administrators and other parties involved in the funding of Early Childhood Services (ECS) to Grade 12 education. It assists school jurisdictions, Francophone regional authorities, charter schools, private ECS operators and funded accredited private schools in accessing funding from Alberta Education.

This *Manual* explains how the funding is made available to school authorities and how it can be obtained. The information in this *Manual* is not intended as a substitute for the Provincial statutes, regulations, specific instructions, or explanatory material issued by various branches of Alberta Education.

The information in Table 4 below has been excerpted from the *Manual* to illustrate how e-learning is currently defined and referenced. These excerpts illustrate that some inconsistencies exist with respect to the funding of students in online programs (see sections describing the funding of students with severe disabilities taking home education or online programs) and the funding of online programs compared to basic instruction programs.

¹⁵ See http://www.education.gov.ab.ca/funding/FundingManual/pdf/2005Manual_single.pdf

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Table 4: Excerpts from the Funding Manual for School Authorities (2005-2006)

ON-LINE PROGRAM is an educational program offered by a **school authority** and delivered electronically to a student at a **school** site or off-site, under the instruction and supervision of a certificated teacher of a **board** or **funded accredited private school**. For full student funding, elementary and junior high students must have access to 950 hours of instruction and senior high students must have access to 1000 hours of instruction. (As per p 16 in the Glossary of Terms)

SCHOOL means a structured education environment through which an education program is offered to a student by:

1. A **board**;
2. A **charter school**;
3. A **private school**;
4. An **Early Childhood Services (ECS) private operator**;
5. A **parent** providing a home education program;
6. The **Minister**.

The Alberta Distance Learning Centre is a non-funded **school** for the purpose of this Manual.

BLENDED PROGRAM means an educational program consisting of two distinct parts:

1. A **school**-provided program where a teacher employed by a **school board** or accredited **private school** is responsible for providing the delivery and evaluation of courses; and
2. A Home Education Program that meets the requirements of the *Home Education Regulation*.

p 53 2. **Blended Program** (as defined in the Glossary of Terms):

Blended Program Allocation for each **Funded Student** = Percentage of School provided Program **X** Base Instruction Rate + Percentage of the Home Education Program **X** Home Education Rate **PLUS**, The lesser of: a) 50% of the compulsory ADL course costs; and b) the result of The total funding for a **blended program** is the sum of all the amounts determined for each of the **funded students** in **blended programs**. See ADDITIONAL INFORMATION in this section for calculation examples of the Blended Program allocation.

p 54 Students enrolled in Grades 1 to 9 who are participating in a **blended program** and accessing 50 percent or more of their education program at **school** may be claimed as **funded students** by the **supervising board**. However, Alberta Education will prorate the funding based on the percentage of the student's program taken at **school**, and the percentage of the student's program taken at home.

Students enrolled in Grades 10 to 12 who are participating in a **blended program** and accessing 20 percent or more of their education program at **school** may be claimed as **funded students** by the **supervising board**. However, Alberta Education will prorate the funding based on the percentage of the student's program taken at **school**, and the percentage of the student's program taken at home.

In accordance with Section 8 of the *Home Education Regulation*, a **supervising board** shall provide to a **parent** of a student enrolled in a **blended program** an amount of money using the percentage of the home education rate which is in proportion to the percentage of the program or courses provided by the **parent**.

p 55 **School jurisdictions** shall have home education policies in place that indicate which Program of Study and instructional materials will be considered for reimbursement and the amount of reimbursement for students in **blended programs**.

p 208 **Funded students** who are registered with **school authorities** in alternative programs such as home education/**blended**, **outreach** and **online** are counted in the Student Health Initiative (SHI) funding allocation through the **school authority** where they are registered. The SHI funds are provided to the SHI Partnership to which that authority belongs. Each Student Health Partnership is responsible for the student health needs of any student registered with its **school authority** partners who live in another region of Alberta.

p 3, Section 1.2 (Base Instruction) For diploma examination courses condition 8(a) only applies to the school awarded portion of the mark.

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b) for regular courses delivered to students **on-line** or by distance learning the attendance funding criteria may not apply. Funding will be provided if the student has:

i) earned a final mark of 50% or better in the course, or

ii) earned a final mark of 25% or greater, but less than 50% in the course and has worked on and been assessed on at least 50% of the course content.

p 2, Section 1.8 (ESL Funding – Allocation Criteria) 8. **Funded students** enrolled in Home education, **blended programs**, **outreach programs** or **on-line programs** are not eligible for funding under this section.

p 4 Section 1.11 (Small Schools by Necessity – Documentation and Reporting Requirements) 3. **Schools** of choice will not be considered in Small Schools by Necessity funding. The following list provides examples of the excluded categories of these **schools**:

- Outreach Schools
- Hockey/Dance Schools
- Home Education Schools
- Institutional Schools
- Religious Education Schools
- **On-Line Schools**
- Hutterite Colony Schools
- Language/Cultural Schools
- **Schools** that mainly serve students/children with severe special needs
- French Immersion Schools

This is not intended to be a complete list of all the categories but, for the purpose of this section, is intended to provide clarification of what is meant by **schools** of choice.

p 2 Section 1.12 (Intra-Jurisdiction Distance) 6. Students enrolled in Home education, **on-line programs**, institutions and Hutterite Colony Schools are not counted for funding under this section.

p 2 Section 1.13 (Enrollment Growth Funding – Allocation Criteria) 10. Students enrolled in Home education, and **on-line programs** are not counted for **school jurisdiction** enrolment growth funding under this section.

11. Students enrolled in Home education, **Outreach programs** and **on-line programs** are not counted for **school** enrolment growth funding under this section.

p 2 Section 1.14 (Enrollment Decline Funding – Allocation Criteria) 8. Students enrolled in Home education, and **on-line programs**, are not counted for **school jurisdiction** enrolment decline funding under this section.

p 1 Section 1.16 (Northern Allowance Funding – Allocation Criteria) 4. Students enrolled in Home education, **On-line programs** and Hutterite Colony schools are not eligible for funding under this section.

p 5 Section 1.19 (Rural Transportation Funding – Allocation Criteria) 7. Students transported by a **board** to an **on-line program** or an **outreach program** accessing 50 percent or more of their educational program at a **school** of the **board** or to a **blended program** at a **school** of the **board** may be claimed as **eligible passengers** under Rural Transportation.

p 4 Section 1.20 (Urban Transportation Funding – Allocation Criteria) 16. Students transported by a **board** to an **on-line program** or an **outreach program** accessing 50 percent or more of their educational program at a **school** of the **board** or to a **blended program** at a **school** of the **board** may be claimed as **eligible passengers** under Urban Transportation.

p 2 Section 1.23 (Francisation Funding – Allocation Criteria) 7. **Funded students** enrolled in Home education, **blended programs**, **outreach programs** or **on-line programs** are not counted for funding under this section.

p 1 Section 1.26 (Daily Physical Activity Funding – Allocation Criteria) 2. Outreach schools, **on-line**

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schools, schools serving solely home education students, and Hutterite colony **schools are not eligible for this funding.**

p 1 Section 3.3 (Severe Disabilities Funding – Conditions) 6. **Students with a severe disability** enrolled in an **on-line program, blended program** or a home education program are not eligible for severe disabilities funding.

p 1 Section 3.6 (Daily Physical Activity (DPA) Funding) 2. Outreach schools, on-line schools, home education schools, and Hutterite colony schools are not eligible for this funding.

Note: The information above was retrieved Jan 9th, 2006.

6.3 K-12 Learning System Policy, Regulations and Forms Manual

A revised *Policy, Regulations and Forms Manual*¹⁶ was approved by the Minister of Education and released by Alberta Education in January 1996.

The legislative framework¹⁷ that underlies this *Manual* is captured in Table 5.

A review of the *Manual* for references to e-learning reveals that Alberta Education does not use regulation or policy to directly address e-learning. Several policies might imply e-learning.

The following **Home Education Policy**¹⁸ excerpt implies that online learning is considered part of a blended learning program which involves some percentage of home education and is funded accordingly.

2. *If a parent chooses to register the student in a program or courses from the Alberta Programs of Study accessed through the Alberta Distance Learning Centre (ADLC) or through Distance Education Consortia operated by school boards or funded private schools, the entire program or courses will be paid for by the supervising board or private school and Alberta Learning will provide additional funding to the board or funded private school to help cover the additional costs of the program or courses which exceed the funding provided.*
3. *Parents choosing programs or courses other than the Alberta Programs of Study accessed through the ADLC or through Distance Education Consortia operated by school boards or funded private schools are not eligible for any additional funding to offset the cost of such a program or courses other than the minimum of 50% of home education funding provided to the supervising board or funded private school.*
4. *Alberta Learning will provide school boards and funded private schools, but not charter boards, with funding for each student enrolled in a blended program. The funding per student will be prorated based on the percentage of the student's program, which is taken at school, and the percentage of the student's program taken at home.*

The **Outreach Programs Policy**¹⁹ references distance learning as an option for part of a student's program, but does not include a reference to online learning.

The **Charter Schools Policy**²⁰ is purposefully enabling. Its purpose is to "provide for an innovative, different or enhanced program to improve student learning." This would suggest that Charter Schools could offer online learning programming as a component of its overall approach.

¹⁶ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/toc.asp>

¹⁷ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/legis.asp>

¹⁸ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/112.asp>

¹⁹ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/114.asp>

²⁰ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/111.asp>

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The **Alternative Programs Policy**²¹ appears to be the most enabling in terms of e-learning through their use of the phrase “particular teaching philosophy” which could be interpreted to include e-learning. See excerpt below.

Alternative programs

21 (1) In this section, "alternative program" means an education program that

(a) emphasizes a particular language, culture, religion or subject-matter, or

(b) uses a particular teaching philosophy,

but that is not a special education program, a program referred to in section 10 or a program of religious education offered by a separate school board.

(2) If a board determines that there is sufficient demand for a particular alternative program, the board may offer that program to those students whose parents enroll them in the program.

(3) A board that offers an alternative program shall continue to offer the regular education program to those students whose parents do not enroll them in the alternative program.

(4) If a parent enrolls a student in an alternative program, the board may charge that parent fees for the purpose of defraying all or a portion of any non-instructional costs that

(a) may be incurred by the board in offering the alternative program, and

(b) are in addition to the costs incurred by the board in providing its regular education program.

Note: The information above was retrieved Jan 9th, 2006.

Table 5: Legislative Framework for Learning System Policy, Regulations and Forms Manual

AUTHORITY	DESCRIPTION
<i>Vision and Mission</i>	The department’s vision is to provide “the best learning system in the world.” The mission is: “Alberta Learning, through its leadership and work with stakeholders, ensures that learners are prepared for lifelong learning, work and citizenship so they are able to contribute to a democratic, knowledge-based and prosperous society.”
<i>Alberta Learning Three-Year Business Plan</i>	The plan provides an overall direction for the future of education in Alberta and identifies key goals, strategies, performance measures, results and timelines for improving the provincial system of public education.
<i>School Act</i>	The School Act describes the relationship of the Minister to students, parents and school jurisdictions and provides for the system of administration and financing of education in Alberta and generally deals with the ultimate authority of the Minister with respect to all constituents in the educational system.
<i>Government Organization Act</i>	The Government Organization Act creates the Department of Education under authority of the Minister of Education and provides for the funding of education from the General Revenue Fund. This Act replaced the Department of Education Act on January 1, 1995.
<i>Teaching Profession Act</i>	The Act enacts the Alberta Teachers’ Association (ATA) as teachers’ professional organization in Alberta. Under the Act , the objectives of the ATA are to: (1) advance and promote the cause of education in Alberta; (2) improve the teaching profession; (3) arouse and increase public interest in the importance of education and public knowledge of the aims of education, financial support for education, and other education matters; (4) to cooperate with other organizations and bodies in Canada and elsewhere having the same or like aims and objectives.
<i>Policy, Regulations and Forms Manual</i>	The Manual is a resource for school boards, schools, school councils, private schools and ECS private operators. It contains prescriptive and information policies, regulations and forms to guide the delivery of education in the following areas: (1) Education Programs and Services; (2) Accountability in Education; (3) Information Bulletins. The policies and regulations define the requirements for funding eligibility under the

²¹ See <http://www.education.gov.ab.ca/educationguide/pol-plan/polregs/115.asp>

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	School Act and the Government Organization Act.
<i>Funding Manual for School Authorities</i>	The Manual defines the terms and conditions under which a board, private school or ECS private operator may obtain funding.
<i>Programs of Study</i>	They are primarily descriptions of the expectations for student learning at the elementary, junior high and senior high school levels. The content of the programs of study is focused on what students are expected to know and be able to do in each course that has been developed for these levels.
<i>Guide to Education: ECS to Grade 12</i>	The <i>Guide to Education: ECS to Grade 12</i> is published for the use of administrators, counsellors, teachers and a general audience. The <i>Guide</i> is intended to serve the following purposes: (1) to identify program requirements specified by Alberta Learning; (2) to provide information about the characteristics of students; and (3) to communicate information useful in organizing and operating schools to meet the needs of students.

Note: The information above was retrieved Jan 9th, 2006.

6.4 *Guide to Education ECS to Grade 12 (September 2005)*

The *Guide to Education*²² is released by Alberta Education for the use of administrators, counsellors, teachers and other parties engaged in the delivery of quality basic education. It has been developed to assist in the implementation of the objectives and underlying principles of the *School Act*. Policies, procedures and organizational information required to operate schools are included, or directions are given for the reader to obtain this information. The French edition of this *Guide* entitled *Guide de l'éducation, Manuel de la maternelle à la 12^e année* is available for educators in Francophone schools.

The excerpts in Table 6 below provide guiding information that is relevant to those school authorities considering or involved in e-learning. The excerpts also demonstrate that Alberta Education enables flexibility in education programming rather than providing specific direction for each type of education programming (see the bolded statement in “P 17 Education Delivery” example below).

Although helpful, this information is somewhat dated and does not address key components of an overall e-learning program (e.g., roles and responsibilities of the Department, the School Board, the school, etc.; professional development; quality; etc.).

Table 6: Excerpts from Guide to Education ECS to Grade 12

<p>P 10 Learning Technologies Branch: Alberta Education continues its responsibility for the design, development, production and distribution of distance learning courses.</p> <p>The Learning Technologies Branch (LTB) is responsible for providing leadership and consultation in the identification, development, implementation and evaluation of effective distance learning strategies and techniques in Alberta schools.</p> <p>LTB can be found on the Alberta Education Web site at http://www.education.gov.ab.ca/ltb. The following are some of the</p> <p>LTB services:</p> <ul style="list-style-type: none"> ◆ providing workshops and seminars to groups establishing distance learning networks and consortia ◆ assessing developments in technology, telecommunications networking, database access, ◆ hardware and software ◆ maintaining liaison with suppliers of materials for use in distance learning ◆ designing and developing all educational technology products used to deliver instruction in

²² See http://education.gov.ab.ca/educationguide/pdf_files/handbook.pdf

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distance learning courses.
<p>p 17 Education Delivery: Schools must engage students in a variety of activities that enable them to acquire the expected learnings. Schools have authority to deploy resources and may use any instructional technique acceptable to the community as long as the standards are achieved. Schools, teachers and students are encouraged to take advantage of various delivery options, including the use of technology, distance learning and the workplace.</p>
<p>p 87 An online program is a structured learning environment in which students access educational programs electronically. The planning, implementation and assessment of instruction is the responsibility of a certificated teacher employed by a school board or accredited private school. Online program providers must ensure elementary and junior high school students have access to a minimum of 950 hours of instruction and senior high school students have access to a minimum of 1000 hours of instruction for Alberta courses and programs of study.</p> <p>School authorities providing instruction through online delivery should develop policies and/or procedures on a variety of issues prior to program implementation. Specifically, school authorities should consider:</p> <ul style="list-style-type: none">♦ 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 program access by students living outside Alberta♦ program decisions; e.g., self-paced or teacher controlled♦ how to deliver all outcomes of Alberta programs of study♦ provision for writing achievement tests and diploma examinations♦ program and teacher evaluation♦ how to provide alternative forms of program delivery for nonresident students who are experiencing difficulty in the online environment. <p>Students are to be identified in the Student Information System (SIS), using the grants program code for online programs. The Alberta Online Consortium provides further information about online education and online schools. The Alberta Online Consortium can be contacted at http://www.ataoc.ca.</p>
<p>p 95 Blended Program: A blended program is an education program that consists of two distinct parts:</p> <ul style="list-style-type: none">♦ Part 1—an in-school program where a teacher, employed by the school board or accredited private school, is responsible for the direct delivery and evaluation of courses♦ Part 2—a home education program that meets the requirements of Home Education Regulation 251/2001 as amended. <p>For more information on the requirements for the home education portion of the program, see the Home Education section of this <i>Guide</i>. School boards, or accredited private schools, are not required to offer blended programs; the offering of a blended program is optional.</p> <p>A funded blended program is a blended program where the teacher employed by a school board, or an accredited private school, is responsible for the direct delivery and evaluation of courses amounting to:</p> <ul style="list-style-type: none">♦ at least 50% of the student's program in grades 1 to 9♦ at least 20% of the student's program in grades 10 to 12.
<p>p 97 Distance Learning: Alberta Education designs, develops and produces distance learning courses and courseware through the Learning Technologies Branch (LTB). These are available for purchase from the Learning Resources Centre. See Learning Technologies Branch in this section. The Alberta Distance Learning Centre (ADLC) is operated by Pembina Hills Regional Division No. 7. Information on programs and services may be obtained directly from ADLC or</p>

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found on their Web site at www.adlc.ca.

Note: The information above was retrieved Jan 9th, 2006.

6.5 *Guide to Education Planning and Results Reporting (requirements for Alberta school boards and francophone authorities and their schools) – April 2005*

Based on Section 16(2) of the Government Accountability Act that requires organizations under the jurisdiction of government ministries to prepare business plans and annual reports for each fiscal year “in the form and at a time acceptable to the Minister”, the *Guide to Education Planning and Results Reporting, April 2005*²³ provides the requirements for

- ♦ Three-year education plans for 2005–2008 (These plans cover the 2005/06, 2006/07 and 2007/08 school years and **were due on June 24, 2005.**); and
- ♦ Annual education results report for the 2005/06 school year, based on the three-year education plans for 2005 – 2008. Reports are due November 30, 2006.

It is believed that the planning and reporting mechanisms outlined in this *Guide* provide schools and school jurisdictions with opportunities to impact priorities for provincial improvement through the accountability cycle (see page 2 in section 1 of the *Guide*). As more schools adopt online learning as a priority, education plans and annual results have the potential to influence future policy and legislation in the area of e-learning in Alberta.

The *Guide to Charter School Education Planning and Results Reporting, May 2005*²⁴ stipulates similar planning and reporting requirements to the guide referred to in Section 6.5.

6.6 *Alternative Programs Handbook – 2003*

*The Alternative Programs Handbook – 2003*²⁵ states that:

“Alberta’s learning system respects the right and responsibility of parents to make decisions that best suit the needs of their children. By supporting programs of choice, the province strengthens the public school system and promotes the availability of diverse educational experiences for Alberta students.”

Changes to the School Act in 1988 and 1994 gave school boards the authority to offer alternative programs (programs that emphasize a particular language, culture, religion, subject matter or teaching philosophy), opened the boundaries between school boards and schools, and enabled groups to operate charter schools. These changes enabled parents to send their children to their choice of any public school in the province, provided there were sufficient facilities and resources available.

In 2003, the Department released this *Handbook* to assist school boards, school staff, school councils and other interested groups in offering, developing and implementing alternative programs under section 21 of the School Act (RSA 2000).

²³ See <http://www.education.gov.ab.ca/departement/planning/schoolguides/SBPRGuide2005.pdf>

²⁴ See <http://www.education.gov.ab.ca/departement/planning/schoolguides/CharterSchGuide2005.pdf>

²⁵ See <http://www.education.gov.ab.ca/educationsystem/AltProgHandbook.pdf>

7. E-learning Profile in Canada

E-learning is becoming more prevalent in Canada. In December, 2001, Kathy Sullivan prepared a paper entitled *Online Learning (K-12) in Canada: History and Current Practice*²⁶. This document provided a brief history of distance learning (using Alberta from 1923 to 1996 as a case study), discussed the evolution of provincial networks, and described some early online learning projects. It also provided a snapshot of e-learning activities in each province and territory at that time. However, the e-learning landscape in Canada has changed since 2001.

This section of the *Profile* provides an updated description of e-learning in Canada in 2006. References are made to any supporting provincial or territorial policies, legislation, standards, guidelines, strategic plans or other relevant documentation where available. This 2006 snapshot of the Canadian e-learning landscape serves as a reference to educators interested in e-learning.

A high level overview of this section can be found in the Executive Summary.

7.1 Alberta

Refer to Sections 4, 5 and 6 for a detailed profile of e-learning in Alberta.

7.2 British Columbia

British Columbia Ministry of Education Distributed Learning Strategy

E-learning activities in BC take the form of **distributed learning**. The BC Ministry of Education (<http://www.bced.gov.bc.ca>) defines distributed learning as an alternative to classroom-based instruction for Kindergarten to Grade 12 students where the student is primarily at a distance from the school. The Ministry acknowledges that distributed learning can be delivered using paper-based print material, electronic delivery, face-to-face communication or combinations of these and therefore uses the term distributed learning.

Students enrolled in distributed learning programs in BC usually take their educational program from home, however, students may enroll full-time or part-time or may combine a distributed learning program with classroom-based instruction.

BC has articulated

- ♦ detailed policies related to distributed learning in public school settings (http://www.bced.gov.bc.ca/policy/policies/distance_ed.htm);
- ♦ detailed requirements and guidelines for students with special needs taking distributed learning (http://www.bced.gov.bc.ca/policy/policies/spneed_distance_ed.htm);
- ♦ distributed learning program standards and conditions in independent school settings (http://www.bced.gov.bc.ca/independentschools/bc_guide/dl_program.htm); and
- ♦ the differences between distributed learning and home schooling (http://www.bced.gov.bc.ca/dist_learning/dl_vs_homeschool.htm)

Note: The Ministry's outdated legislation related to distance education schools has been superseded by the above-noted policy.

More information about these policies, legislation, guidelines, standards, and differences is provided below in Tables 7 to 11 (as retrieved on Jan 9, 2006).

The following additional information about BC's distributed learning plans was shared in a recent e-mail (from Solvig Norman via the Canadian Association of Distance Education (CADE) Board news group, Jan 11, 2006, cade-board-bounce@teluq.quebec.ca):

²⁶ See http://hrsbstaff.ednet.ns.ca/sullivk/online_learning%20in%20Canada.htm

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“The British Columbia's Ministry of Education is working on an Action Plan for distributed learning that includes:

- ♦ Changing legislation and the funding and policy environment to provide students with more flexibility and choice.
- ♦ Creating program delivery standards and content standards.
- ♦ Supporting BCed Online to implement a professional development plan for K-12 teachers (<http://www.bcedonline.com/2006/>).
- ♦ New initiatives to support rural schools (<http://www.bcedonline.com/2006/node/40> and http://www.bced.gov.bc.ca/dist_learning/e_learning.htm and <http://www.bced.gov.bc.ca/onetoone>).
- ♦ Creating a provincial student information system (BCeSIS) that also handles the complexity of distributed learning programs.
- ♦ Supporting “web casting” projects for Professional Development for teachers.

In addition, Open School BC (<http://www.openschool.bc.ca/>) is in the midst of launching a fully operating learning object repository for the K-12 system in BC (called the “Educator's Resource Centre”). Open School BC has also been managing a province-wide license for WebCT, which has attracted a growing number of school districts (the numbers are around 45+ school districts out of 60+ school districts in the province).”

Note: The information above was retrieved Jan 9th, 2006.

In September 2005, the Ministry moved towards equalizing funding between continuous entry distributed learning programs and bricks-and-mortar schools. Continuous entry FTEs previously funded at about \$2000 are now funded at \$5753. Distributed learning programs are also eligible for Special Needs supplemental funding.

More information about BCed Online, the delivery standards referred to in the preceding message, and Open School BC is provided below.

Leading Organizations in the Field

BCed Online is an umbrella organization whose goal is to build strong and mutually beneficial partnerships between school districts and their district administrators, teachers and their specialist organizations, independent schools, post-secondary institutions, government and the private sector. BCed Online is in its infancy and was officially launched at the “Building Online Communities” conference in April 2004.

The role of the organization is broad-based and provincial in scope. BCed Online provides leadership in the development and management of online content, including courses and learning objects. It acts as an advocate for learners, teachers and administrators by seeking to inform and influence government policy and programs for online learning. It demonstrates leadership in providing professional development opportunities for educators engaged in online learning activities. It provides a single access point for communication and coordination of activities involving the private sector. Finally, it develops and implements research frameworks and research projects designed to evaluate online learning content and activities. (Retrieved from <http://bcedonline.com/2006/node/16> on Jan 14, 2006)

BCed Online has produced *Draft Delivery Standards (October 4, 2005)*²⁷ and content standards (see Draft at http://www.bcedonline.com/pdf/Digital_Learning_Content_St.pdf) that are intended for students, parents, teachers, administrators, trustees and Ministry staff, and have been organized to correspond with the following six domains:

- ♦ Student and Parent Services
- ♦ Teaching and Learning
- ♦ Instructional Design and Course Content

²⁷ See <http://www.bcedonline.com/2006/forms/Delivery%20Standards%20Oc.pdf>

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- ♦ Governance and Leadership
- ♦ Technology
- ♦ Regulatory and Legal Compliance

Open School BC (a branch of the Queen's Printer of British Columbia, Ministry of Labour and Citizens' Services) provides educational materials for the Kindergarten to Grade 12 community. The organization has a long history which dates back to 1919 when the Department of Education opened the Provincial Correspondence School. Today, Open School BC continues to support over 25,000 learners across the province with K-12 content, courses and resources that meet the BC Ministry of Education curriculum standards and requirements. (Retrieved from <http://www.openschool.bc.ca/about.html> on Jan 14, 2006.)

Legislation

The *School Act, Revised Statutes of British Columbia, 1996*²⁸ does not currently reference distributed learning. Instead, the term distance education is defined and referred to in terms of home education options, catchment areas, and in the definition of student (see below).

"**distance education school**" means a school or francophone school that offers instruction to its students solely through one or more of the following:

- (a) correspondence courses;
- (b) telecommunications mediums;
- (c) other electronic mediums of communication;

"**student**" means a person enrolled in an educational program provided by a board to whom instruction in the educational program is required to be provided free of charge under section 82 (1) or (2.1) but does not include a person who is enrolled in a Provincial resource program or a distance education school."

Note: The information above was retrieved Jan 9th, 2006.

These definitions would suggest that the terms distance education and distributed learning have blurred since the *School Act* was written and may impact the defacto definition of today's student (note that persons enrolled in distance education are excluded from the definition of student in the existing wording of the *Act*). The terminology used in existing legislation (i.e., the *School Act*) lags current activities in e-learning in the province.

Additional legislation under consideration includes:

- ♦ Placing limitations on the practice of offering cash incentives for enrolments;
- ♦ Allowing students in Grades 10 to 12 to enroll concurrently in bricks-and-mortar and distributed learning programs; and
- ♦ Allowing boards to contract with each other for delivering educational services, including distributed learning.

Uptake in the Field

As of September 30 2005, British Columbia had 34 public and 10 independent distributed learning programs. Nine distance education schools provide continuous entry programs. Over 17,000 students are currently enrolled in these K-12 programs (note that these numbers include adults taking courses to graduate).

Summary

British Columbia has adopted a decentralized collaborative approach to the implementation of distributed learning in the province, and demonstrates its commitment to distributed learning through

²⁸ See <http://www.bced.gov.bc.ca/legislation/schoollaw/revisedstatutescontents.pdf>

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- ♦ their published Draft Delivery Standards,
- ♦ their support of BCEd Online,
- ♦ their implementation of a provincial student information system,
- ♦ the policies they have developed,
- ♦ the distributed learning action plan currently being developed, and
- ♦ their efforts to determine the professional development needs of teachers offering distributed learning.

Table 7: Public School Policy Document: Distributed Learning (formerly Distance Education or Distance Electronic Learning)

DATES	Revised July 1, 2004. Please note references to revised graduation requirements to take effect July 1, 2004.
STATUS	Under Review
POLICY STATEMENT	Any school board in B.C. may offer a distributed learning program and will receive per student funding.
RATIONALE	This policy provides school districts with greater autonomy and flexibility, and parents and students with greater choice. It is consistent with the provisions of the <i>School Act</i> related to all enrolled students, regardless of their program, and defines the responsibility of school boards.
LEGISLATION/REGULATIONS	See Ministerial Order 526/95, the <i>Distance Education Order</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m526-95.pdf or Appendix A, Attachment 1).
ADDITIONAL DEFINITIONS	Distributed Learning is a method of instruction that occurs when the student is primarily at a distance from the teacher and school.
POLICY	<p>According to section 75 of the <i>School Act</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/revisedstatutescontents.pdf), school boards are responsible for the education program of students enrolled in their district. The Ministry of Education will provide per student funding based on the following four criteria:</p> <ol style="list-style-type: none"> 1. The school board is responsible for the education program of students enrolled in the school district. 2. The school board is responsible for ensuring that each student's education program is under the supervision of a member of the British Columbia College of Teachers (http://www.bcct.ca/default.aspx). 3. The school board is required to provide the requirements for an educational program as set out in the following Ministerial Orders: <ol style="list-style-type: none"> (a) Ministerial Order 295/95, the <i>Required Areas of Study in an Educational Program Order</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m295-95.pdf or Appendix A, Attachment 2), for students in Grades K-9, and (b) Ministerial Order 205/95, the <i>Graduation Requirements Order</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m205-95.pdf or Appendix A, Attachment 3), for students in Grades 11 and 12 who began Grade 10 before July 1, 2004, and for students who began Grade 10 on or after July 1, 2004, Ministerial Order 302/04, <i>Graduation Program Order</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m302-04.pdf or Appendix A, Attachment 4). 4. The school board is responsible for ensuring that students are assessed and evaluated by a member of the British Columbia College of Teachers, as set out in the following Ministerial Orders: <ol style="list-style-type: none"> (a) Ministerial Order 60/94, the <i>Student Learning Assessment Order</i> (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m60-94.pdf) (b) Ministerial Order 191/94, the <i>Student Progress Report Order</i>

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	<p>(http://www.bced.gov.bc.ca/legislation/schoollaw/e/m191-94.pdf) (c) Ministerial Order 192/94, the Provincial Letter Grades Order (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m192-94.pdf) (d) Ministerial Order 190/91, the Permanent Student Record Order (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m190-91.pdf) The cap on enrollment in, and the number of locations allowed for, Distributed Learning, has been removed. Continuous Entry -- Distributed Learning Programs (formerly paper-based programs) will continue unchanged.</p>
PROCEDURES	N/A
REFERENCES/RESOURCES	<p>See http://www.bced.gov.bc.ca/dist_learning/ for more information about Learning at a Distance.</p> <p>For clarification of the differences between Distributed Learning and Home schooling, see section 3.1.4, http://www.bced.gov.bc.ca/dist_learning/dl_vs_homeschool.htm or Appendix A Attachment 9).</p>
CONTACT	<p>Questions relating to the Distributed Learning Policy may be directed to the Distributed Learning Unit via e-mail at mailto: EDUC.DistanceEducationOnlineLearning@gems6.gov.bc.ca.</p>

Note: The information above was retrieved Jan 9th, 2006.

Table 8: Public School Policy Document: Requirements and Guidelines for Students with Special Needs Taking Distributed Learning

DATES	In effect July 1, 2003.
STATUS	Revised policy
POLICY STATEMENT	<p>These requirements and guidelines apply to school boards that deliver distributed learning to enrolled British Columbia students with special needs. A Distributed Learning program is one option for instructing students with special needs. These guidelines are not for continuous entry students (formerly paper-based distance education), or students who are home schooled.</p> <p>The Policy section, below, includes Requirements that must be followed. The Guidelines are considerations for planning a program for students with special needs. The requirements and guidelines both apply to new programs as well as existing Distributed Learning programs.</p>
RATIONALE	These requirements and guidelines were created to provide guidance to those school boards that deliver Distributed Learning programs to enrolled BC students with special needs.
LEGISLATION/REGULATIONS	<p>See Ministerial Order 526/95, the <i>Distance Education Order</i>.</p> <p>Also see Ministerial Order 638/95, the Individual Education Plan Order (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m638-95.pdf), and Ministerial Order 150/89, the Special Needs Students Order (http://www.bced.gov.bc.ca/legislation/schoollaw/e/m150-89.pdf).</p>
ADDITIONAL DEFINITIONS	N/A
POLICY & PROCEDURES	<p>Requirements To qualify for Level 1, 2 or 3 special needs funding, school boards must meet the following requirements:</p> <ol style="list-style-type: none"> 1. Students with special needs must be included in school accountability activities

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and district accountability contracts.

2. Ministry of Education guidelines found in [Special Education Services: A Manual of Policies, Procedures and Guidelines](#), which contain requirements for assessment and provision of services for students with special needs, must be followed.

3. Individual Education Plans (IEPs) must follow Ministry of Education guidelines found in Special Education Services: A Manual of Policies, Procedures and Guidelines.

4. The Distributed Learning program provided for a student with special needs must comply with provincially prescribed outcomes of British Columbia K-12 curriculum or the achievement of goals in a student's IEP.

5. When more than one school board provides services, the enrolling school board must take responsibility for identification of a student with special needs and consulting with parents on the student's IEP.

6. Only qualified teachers can provide Distributed Learning programs. School boards are responsible for ensuring appropriate technical support is available.

7. The school board must have a policy that addresses roles and responsibilities, including custodial care, for a student engaged in a Distributed Learning program. The school board is not responsible for providing personal care or behaviour management for a student taking a Distributed Learning program, while the student is at home.

8. Students whose primary educational setting is at home must have the option of participating in a school setting and with school-based support as the need arises.

9. Each student enrolled in a Distributed Learning program must have access that is equitable to other students in the district to school-based, non-categorical resource services, such as learning assistance services, counseling, school psychology services, speech-language pathology, physiotherapy/occupational therapy, and hospital services with the exception of hospital/homebound services.

10. In the event that services are provided by another school board or service provider, a written agreement must be in place, identifying the roles and responsibilities of each party. Planning such services must be part of the IEP development with the parents being consulted. Service providers must be under supervision of an employee who is a member of the College of Teachers.

11. Documentation must be kept on file recording the frequency and duration of student/program and/or service provider contact as a measure of student participation.

Guidelines

The following are considerations for school boards as they plan Distributed Learning programs for students with special needs:

1. The organization of the school board's program should be consistent with the role and mission of the school board.

2. The school board should have in place clear policy and procedures for electronic communications, including an acceptable code of conduct and expectations for participation in electronic communications.

3. When students with special needs require specialized instruction, assessment and/or assistive technologies, this should be done in consultation with a school or district team, the parents, and, when appropriate, the student.

4. In considering the appropriateness of a program delivered at a distance, the school board should:

a) assess the learning needs and familiarity with technology of each student; and
b) inform the student/parent of:

(i) required access to technologies;

(ii) technical competence required by the student in the program;

(iii) the components and expectations of the program; and,

(iv) the learning and support services available through the program and/or the school board.

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	<p>5. Instruction and learning resources should be provided in a format that meets the student's needs in accordance with the IEP.</p> <p>6. Frequent opportunities should be provided for individualized and timely interactions between teachers and students and among students.</p>
REFERENCES/ RESOURCES	<p>See http://www.bced.gov.bc.ca/dist_learning/ for more information about Learning at a Distance.</p> <p>See also <i>Special Education Services: A Manual of Policies, Procedures and Guidelines</i> at http://www.bced.gov.bc.ca/specialed/ppandg/toc.htm for more general information.</p>
CONTACT	<p>Questions relating to the Distributed Learning Policy may be directed to the Distributed Learning Unit via e-mail at mailto: EDUC.DistanceEducationOnlineLearning@gems6.gov.bc.ca.</p>

Note: The information above was retrieved Jan 9th, 2006.

Table 9: Independent School Distributed Learning Program Standards and Conditions

An independent school may enter into a conditional grant agreement with the Minister of Education to offer a distributed learning (DL) program.

The Inspector of Independent Schools has established requirements and conditions for certifying and funding independent school DL programs.

The Inspector will appoint an inspection team to review the independent school DL program to verify that it is meeting the requirements specified in the agreement.

The following Distributed Learning Program Standards & Conditions are provided below for your information and are taken directly from the *Independent School Distributed Learning (DL) Conditional Grant Agreement*²⁹.

<p>Independent School DL Program Standards</p>
<ol style="list-style-type: none"> 1. The Authority is responsible for delivering the educational program to the Distributed Learning Students enrolled in its Distributed Learning Program. 2. The Authority must register the Distributed Learning Students participating in its Distributed Learning Program with a Personal Education Number. 3. The Authority must ensure that the educational program and Distributed Learning Student learning are directed by a certified teacher. In particular, the Authority must ensure that certified teachers <ol style="list-style-type: none"> (a) complete course planning, (b) engage in on-going content/skill building instruction to Distributed Learning Students, (c) assess and evaluate Distributed Learning Student progress, and (d) report on Distributed Learning Student achievement. 4. The Authority must verify that Distributed Learning Students are able to access certified teachers for a sufficient amount of time to <ol style="list-style-type: none"> (a) enable them to complete the educational program that meets the learning outcomes of the Distributed Learning Students, and (b) meet or exceed the minimal yearly instructional hours specified in Ministerial Order 41/91, the Educational Standards Order under the Independent School Act. 5. The Authority must meet the educational standards for an educational program set out in Ministerial Order 41/91, the Educational Standards Order under the Independent School Act, including <ol style="list-style-type: none"> (a) ensuring the Authority's Graduation Program is implemented in accordance with directions in the Ministry of Education's "Course Information for the Graduation Program" booklet and "Handbook of Procedures for the Graduation Program"; (b) ensuring that the Distributed Learning Students take all of the Provincial Grade 12 Examinations (for students in the 1995 Graduation Program) or Graduation Program Examinations

²⁹ See http://www.bced.gov.bc.ca/independentschools/is_forms/dl_program/05_dl_agrmnt.pdf

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<p>(for students in the 2004 Graduation Program), as required, and (c) making arrangements for Distributed Learning Students to write the examinations at Ministry of Education approved examination sites.</p> <p>6. Without limiting paragraph 5, the Authority, when providing the Distributed Learning Program (a) must meet the provincial learning outcomes, with implementation described in course overviews that include:</p> <ul style="list-style-type: none">(i) content,(ii) variety of teaching strategies and learning activities,(iii) assessment and evaluation method;(iv) linkage with the Ministry of Education's curriculum organizers or authority-approved learning outcomes for courses as specified in Ministerial Order 41/91, the Educational Standards Order under the Independent School Act, and(v) hands-on activities and collaborative and oral language experiences. <p>(b) must meet</p> <ul style="list-style-type: none">(i) either the provincial learning outcomes or the learning outcomes established by the Authority for activities in Fine Arts, Physical Education, Applied Skills, Career and Personal Planning for Kindergarten to grade 9, and(ii) the provincial learning outcomes for all courses credited towards the 1995 or 2004 Graduation Program as applicable. <p>7. The Authority must assess, evaluate and report every Distributed Learning Student participating in its Distributed Learning Program as follows:</p> <ul style="list-style-type: none">(a) in a way that satisfies the Inspector,(b) by ensuring participation of every Distributed Learning Student in provincial assessment and examination programs, and(c) by complying with Inspector Order 1/91, the Reports, Records and Data Submission Order under the Independent School Act. <p>8. The Authority must administer compulsory standardized testing of Distributed Learning Student achievement that is supervised by a certified teacher and/or at a Ministry of Education approved site with a Ministry of Education approved invigilator.</p> <p>9. The Authority must maintain identification standards to establish authenticity of Distributed Learning Students responding to assignments and taking tests. These standards must include physical or electronic visits by certified teachers of all Distributed Learning Students.</p> <p>10. The Authority must have technology and delivery infrastructure in place to ensure, to the satisfaction of the Inspector, reliable delivery of the educational program to and response from Distributed Learning Students' computers with minimal interruption.</p> <p>11. The Authority must deliver a significant portion of the Distributed Learning Program through electronic means.</p>
<p style="text-align: center;">Independent School DL Program Conditions</p> <p>1. The Authority must comply with section 1 of the Schedule of the Independent School Act.</p> <p>2. The Authority may only use the Grant for qualifying Distributed Learning Students and partially qualifying Distributed Learning Students.</p> <p>3. The Authority may only use the Special Education Grant, as defined in the conditional grant agreement, for qualifying Distributed Learning Students with special needs.</p> <p>4. The Authority may only use a Special Purpose Grant for the purpose for which it is paid.</p> <p>5. The Authority may not enrol students as Distributed Learning Students who are not ordinarily resident in British Columbia.</p> <p>6. The Authority's principal for the Distributed Learning Program must hold</p> <ul style="list-style-type: none">a) an unrestricted or a subject-restricted certificate of qualification under the British Columbia Teaching Profession Act, orb) an unrestricted or a subject-restricted certificate of qualification issued by the Inspector under the Independent School Act. <p>7. The Authority's Distributed Learning Program must have a minimum of ten Distributed Learning Students enrolled for the 2004/2005 school year.</p> <p>8. The Authority must offer at least five courses in its Distributed Learning Program in at least three</p>

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- (3) subjects for the 2004/2005 school year.
9. The Authority must provide the Province with all Reports described in the DL conditional grant agreement and with any other reports at the time and as required by the Inspector.
 10. The Authority must comply with the Distributed Learning Program Standards.
 11. The Authority must complete and return to the Province the Ministry of Education's Evaluation Catalogue for Independent School Distributed Learning Programs at the time and as requested by the Inspector.
 12. The Authority must participate in the Ministry of Education's External Distributed Learning Program Evaluation after it has completed the Evaluation Catalogue and must cooperate in a timely manner with any requirements of the Province with respect to assessing the Project.
 13. At the request of the Province, and in form and content satisfactory to the Inspector, the Authority must provide the Province with the following:
 - a) a report respecting its Distributed Learning Student identification standards,
 - b) data requested by the Province with respect to the Inspector's Reports, Records and Data Submission Order 1/191, the Reports, Records and Data Submission Order under the Independent School Act; and
 - c) any other report the Province deems necessary to establish whether the Authority is meeting the requirements of the Project.

Note: The information above was retrieved Jan 9th, 2006.

Table 10 below describes blended independent school on-site and DL programs (see also *Independent School Blended Educational Programs (2004)*³⁰).

³⁰ See http://www.bced.gov.bc.ca/independentschools/is_forms/dl_program/dl_blended_chart.pdf

Table 10: Independent School Blended Educational Programs: Students Taking On-Site and Independent Distributed Learning (DL) Courses

	On-Site	Blended On-Site/DL	Blended DL/On-Site	DL
Student Enrolment	Student is enrolled and in full day attendance on-site at a “brick and mortar” Group 1 and 2 independent school.	Student is enrolled and in attendance on-site at “brick and mortar” Group 1 or 2 independent school, but a minority of courses are taken by DL.	Student is enrolled in an independent DL program, but a minority of courses are taken on-site in a “brick and mortar” Group 1 or 2 independent school.	Student is enrolled in an independent DL program.
Educational Program	DL is not used for a stand alone course or program, but is implemented as a resource by an on-site classroom teacher who plans, delivers, assesses and reports on the students’ program who are physically in attendance.	Majority of educational program is provided by enrolling “brick and mortar” school. Minority of courses are taken from a Ministry certified DL program.	Majority of educational program is provided by enrolling independent DL program. A minority of courses are taken at a “brick and mortar” school.	Full educational program is provided by independent DL program.
Student Program and Records	Enrolling school is responsible for overall program and recordkeeping.	Enrolling “brick and mortar” school is responsible for overall program and recordkeeping.	Enrolling independent DL program is responsible for overall program and recordkeeping.	Enrolling independent DL program is responsible for overall program and recordkeeping.
Inspection Process	Standard Group 1 or 2 inspections.	Standard Group 1 or 2 inspections of “brick and mortar” school. Independent school inspection of independent DL program.	Independent school inspection of independent DL Program.	Independent school inspection of independent DL program.
Funding Amount	School evaluated on implementation of educational program. Group 1 (50%) or Group 2 (35%) of local school district per student FTE operating grant amount.	Group 1 (50%) or Group 2 (35%) of local school district per student grant amount. Independent school contracts with DL provider for DL courses.	Standard Group 1 or 2 inspections of “brick and mortar” school. 50% or 35% of provincial DL rate.	Independent DL program contracts with on-site independent school for courses. 50% or 35% of provincial DL rate.

Note: The information above was retrieved Jan 9th, 2006.

Table 11: Differences Between Distributed Learning and Home Schooling

Students enrolled in a public or independent school distributed learning program and children who are registered as home schooled by their parents have different legal definitions, rights and responsibilities under the *School Act* or *Independent School Act*.

Distributed Learning Students	Home Schooled Children
<p>are enrolled in a public or independent school distributed learning program where majority of the learning takes place at a distance</p> <ul style="list-style-type: none"> • educational program is the responsibility of the public or independent school • educational program is directed and supervised by a British Columbia-certified teacher (parents may assist in facilitating the learning process, but are not the teachers) • educational program must meet provincial standards as outlined in the <i>School Act</i> or <i>Independent School Act</i> <p>must receive on-going regular assessments, report cards, provincial letter grades and a permanent student record, as would a student in a neighbourhood school</p>	<p>are registered as homeschooled children in a school within the school district where they reside, a francophone or independent school</p> <ul style="list-style-type: none"> • homeschooled children's educational program is the responsibility of their parents or guardians • educational program is directed and supervised by the parent • do not have to meet provincial standards • are not inspected by the Ministry of Education <p>do not receive a British Columbia Dogwood graduation certificate</p>
<p>School districts receive the same annual per-pupil funding for students enrolled in a distributed learning program as they do for students enrolled in a school;</p> <p>Independent schools receive either 50% (Group 1) or 35% (Group 2) of the per pupil public school distributed learning rate.</p> <p>Public schools must offer a strictly secular program as per the <i>School Act</i>.</p> <p>Independent school distributed learning may incorporate faith-based curriculum as provided for in the <i>Independent School Act</i>.</p>	<p>A registering school district receives \$250 per child and an independent school receives \$175.</p> <p>These funds are provided for administering the registration process and offering educational resources and assessment instruments to parents.</p> <p>Home-schooled children may write Grade 12 provincial examinations at their registering school and receive a Ministry examination (not course) mark.</p>
<p>All public distributed learning programs in British Columbia must be able to demonstrate compliance with the Public School Distance Education Policy. All independent school distributed learning programs must meet the Independent School Distributed Learning Standards.</p>	

Note: The information above was retrieved Jan 9th, 2006.

7.3 Manitoba

Manitoba Education, Citizenship and Youth Distributed Learning Strategy

E-learning activities in Manitoba take the form of web-based course development and delivery. Manitoba Education, Citizenship and Youth does not endorse virtual schools (defined as schools that offer their students courses exclusively via distance learning methods, some of which may be online), saying they acknowledge the importance of bricks and mortar schools in the educational lives of students. However, virtual classrooms (made possible by web-based courses) are supported and are seen as a way to electronically congregate students within virtual classes while they are in attendance in regular school programs. Virtual classrooms are seen as part of a **distributed learning strategy**. In Manitoba, this means students can take courses from a variety of sources and delivery modes

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to customize a program of study. This can involve using a wide range of information technologies to provide learning opportunities beyond the bounds of the traditional classroom, where students can take courses for credit in several ways including web-based courses, interactive television, Independent Study Option, and Teacher Mediated Option. Often the term web-based course is used synonymously with online learning.

The Department's Distance Learning and Information Technology Unit develops web-based courses as part of its commitment to this distributed learning strategy. Web-based courses (WBC) are developed internally and in partnership with school divisions. A review process is part of the course development process.

The Department further supports web-based course delivery in the following ways:

- ♦ provision of provincial WebCT license;
- ♦ maintenance of a course server in co-operation with Manitoba Education Research & Learning Information Networks (MERLIN) (see <http://www.merlin.mb.ca/> for more information);
- ♦ management of web-based course development (Contact John Nedecky at jnedecky@gov.mb.ca or Debra Parker at deparker@gov.mb.ca for more information);
- ♦ provision of instructional design and WebCT training;
- ♦ provision of training for new online teachers; and
- ♦ consultative support to developers.

Currently Available Online Courses

Several web-based courses are available, free of charge, to any school division/district in Manitoba wishing to implement web-based course delivery (<http://www.edu.gov.mb.ca/ks4/dl/wbc/coursesfordelivery.html>). Web-based courses may also be used by teachers as resource material. As of January 20, 2006, the courses listed in Table 12 were available (see below).

Additional information about planning and implementation of web-based courses is offered on the **Technology Integration for Administrators** site (<http://www.edu.gov.mb.ca/ks4/tech/tifa/question.html#wbc> for a list of FAQs related to web-based courses).

In addition to web-based courses at the high school level, Manitoba offers online curriculum-correlated resources for Kindergarten to Grade 8 via the **Curriculum Navigator** (<http://www3.edu.gov.mb.ca/cn/index.jsp>). These resources could be used to enhance an online program at these grades.

Once registered, teachers will find the following resources on the Curriculum Navigator:

- ♦ curriculum-matched flexible, integrated, instructional and assessment strategies;
- ♦ downloadable and customizable electronic back line masters;
- ♦ links to approved, curriculum-matched websites;
- ♦ online help and tutorials;
- ♦ student exemplars and sample activities; and
- ♦ record keeping and outcomes tracking.

Uptake in the Field

In an effort to offer an alternative teaching and learning program option to their students, school divisions deliver web-based courses to their students. Some school divisions also exchange or sell seats in web-based courses to each other. Web-based courses are obtained by these divisions free-of-charge through the Department. These courses are also hosted on the

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Department's server. Approximately 4000 students are currently taking high school level web-based courses in Manitoba.

Legislation

Information about legislation and regulations, and Manitoba Education, Citizenship and Youth statutory responsibilities can be found at

(<http://www.edu.gov.mb.ca/ks4/policy/legreg.html>) and includes:

- ♦ The Blind and Deaf Person's Maintenance and Education Act;
- ♦ The Education Administration Act;
- ♦ The Public Schools Act;
- ♦ The Public Schools Finance Board Act;
- ♦ The Teachers' Pensions Act; and
- ♦ The Teacher's Society Act.

However, no reference to distance learning, distributed learning or online learning was found in these documents.

The *Administrative Handbook for Schools*³¹ provides information on legislative and regulatory authority, however, responsibilities as they relate to the school day, school year, instructional day and compulsory attendance do not currently support online learning environments. Exceptions require the approval of the Minister.

The Department does, however, provide information in the form of two documents including *Distance Learning: A Policy Handbook for Schools/Divisions/Districts (2002)* and *Suggested Guidelines for the Development and Peer Review of Online Distance Learning Courses (2002)* that support schools in their implementation of distance learning programs (see Sections 7.3.1 and 7.3.2 below for more information).

Summary

Virtual schools are not endorsed by the government in Manitoba. However, the Department supports virtual classrooms at the high school level by taking a centralized collaborative approach to the development of web-based courses and to the coordination of web-based course delivery in the province. The Department also provides a policy handbook for distance learning and supporting guidelines for development of online distance learning courses (see sections 7.3.1 and 7.3.2 below). Statutory responsibilities related to online learning have not been articulated.

³¹ See http://www.edu.gov.mb.ca/ks4/docs/policy/admin/school_administrator_handbook_english.pdf

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Table 12: Manitoba's Web-based Courses (2005-06)

Senior 1	Senior 2	Senior 3	Senior 4
Basic French (10G) Drafting (10G) Science (10F)	Applied Mathematics (20S) Basic French (20G) Computer Science (20S) English Language Arts (20F) Geography (20G) Pre-Calculus Mathematics (20S) Science (20F)	Accounting (30S) Agriculture (30S) Applied Mathematics (30S) Biology (30S) Chemistry (30S) Computer Science (30S) old curriculum Computer Science (30S) new curriculum Consumer Mathematics (30S) ELA: Comprehensive Focus (30S) ELA: Literary Focus (30S) ELA: Transactional Focus (30S) History (30S) Physics (30S) Pre-Calculus Mathematics (30S) Software Applications (30S)	Accounting Systems (40S) Applied Mathematics (40S) Biology (40S) Chemistry (40S) Computer Science (40S) old curriculum Computer Science (40S) new curriculum Consumer Mathematics (40S) ELA: Comprehensive Focus (40S) ELA: Literary Focus (40S) ELA: Technical Communications (40S) ELA: Transactional Focus (40S) Law (40S) Physics (40S) Pre-Calculus Mathematics (40S) World Issues (40S)

7.3.1 Distance Learning: A Policy Handbook for Schools/Divisions/Districts

The purposes of the document entitled *Distance Learning: A Policy Handbook for Schools/Divisions/Districts (2002)*³² are to

- ♦ provide information regarding the role of distance learning within a changing educational environment;
- ♦ specify the policy for creating and sustaining a distributed model of online distance learning within a managed and cooperative environment;
- ♦ specify the roles and responsibilities of Manitoba Education, Citizenship and Youth and its partners in developing and implementing a distributed model of online distance learning; and
- ♦ define a peer review process for online distance learning courses.

The policy provides information related to:

1. Communication and Consultation;
2. Credits for Graduation Requirements;
3. Compulsory and Optional Credits;
4. Funding;
5. Development and Delivery of Distance Learning Courses;
6. Coordination;
7. The Managed and Cooperative Distance Learning Environment;
8. The Distributed Model of Online Distance Learning;
9. Roles and Responsibilities; and
10. Peer Review Requirements.

³² See http://www.edu.gov.mb.ca/ks4/docs/policy/online_learning/distancelearning.pdf

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7.3.2 *Suggested Guidelines for the Development and Peer Review of Online Distance Learning Courses*

*Suggested Guidelines for the Development and Peer Review of Online Distance Learning Courses (2002)*³³ is a supplement to *Distance Learning: A Policy Handbook for Schools / Divisions / Districts*. In this document, Manitoba Education, Citizenship and Youth encourages school divisions/districts planning to develop online distance learning courses to form development teams to work together in an ongoing way to:

- ♦ develop the course materials;
- ♦ identify appropriate learning resources; and
- ♦ review and revise learning materials continually as they are developed.

This effort is supported through the provision of suggested formative peer review criteria and a summative evaluation and sign-off form in this document.

7.4 *New Brunswick*

New Brunswick Department of Education Distance Learning Program

The New Brunswick Department of Education / Ministère de l'Éducation (<http://www.gnb.ca/0000/index-e.asp> / <http://www.gnb.ca/0000/index-f.asp>) is committed to its *Quality Learning Agenda, A Cornerstone of Greater Opportunity: New Brunswick's Prosperity Plan 2002 – 2012*³⁴. A key component of the Department's plans is to expand the use of technologies in the classroom to support learning by:

- ♦ Expanding e-learning as a way to deliver teacher professional development;
- ♦ Installing broadband technology in all New Brunswick schools;
- ♦ Expanding the range of online programs offered;
- ♦ Maintaining a database of teaching resources, available to teachers and students, to supplement traditional learning aids and activities;
- ♦ Expanding distance education offerings to 60 high school courses with additional courses developed as needs are identified; and
- ♦ Establishing a pilot project to assess the benefits of dedicated access to personal computers to support learning and integration of technology.

More information about the *Quality Learning Agenda* can be found at either <http://www.gnb.ca/0000/qla-e.asp> or <http://www.gnb.ca/0000/qla-f.asp>.

Several initiatives are currently underway in support the *Quality Learning Agenda* including:

- ♦ **Distance learning course offerings:** Anglophone course offerings currently consist of over 42 high school courses, including all required courses at grades 11 and 12 as well as many optional and advanced level courses (see Table 14 below or visit <http://www.gnb.ca/0000/as/dl-e.asp>). See below for more information about the distance learning program in NB.

New Brunswick's **distance learning program** emphasizes a facilitated learning approach, where distance facilitators use online course chat rooms, discussion boards, e-mail and videoconferencing to engage students in the learning process. Local facilitators at the students' schools ensure that students can access and use the tools and equipment they need to complete the course. Students work independently, completing online interactive activities, assignments and tests as they progress through the course.

³³ See http://www.edu.gov.mb.ca/ks4/docs/policy/online_learning/distancelearningsupp.pdf

³⁴ See <http://www.gnb.ca/0000/publications/comm/1894-Publication-E.pdf>

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Classroom teachers can register an entire class in a specific course, and use interactive activities and animated demonstrations to enhance their instruction and students' learning.

The Department also promotes the use of their courses beyond the provinces' boundaries as illustrated in the following quote.

“Although all of the online courses are specifically designed to meet New Brunswick curriculum outcomes, they can also be used effectively to meet the learning needs of students in other provinces and countries.”

- ♦ **Notebook Research Project:** In the spring of 2004, the New Brunswick Department of Education announced a call for participation in a two year Notebook Research Project involving three Francophone and three Anglophone schools. See <http://www.gnb.ca/0000/as/notebook-e.asp> for more information.
- ♦ **NB Education Portal:** The NB Education Portal project began in June of 2004. In its first phase, the Portal is intended for Department of Education and teacher use. The Portal includes a secure logon to a centralized environment, personalized and integrated web-based communications tools, and over 800 resources developed by and for New Brunswick teachers. In future phases, student and parent/guardian interfaces are anticipated. For more information about the Portal, see <http://www.gnb.ca/0000/as/tr-e.asp>.
- ♦ **Provincial, National and International e-Learning Partnerships:** The New Brunswick Department of Education supports and encourages provincial, national and international partnerships. Partnerships with the Netherlands, Australia and the ICT League are currently underway (e.g., The Global Teenager Project, ECHO's Project Celebrating 60 Years of Freedom, Journey Through Time and Space). For more information about partnerships in the Anglophone sector, see <http://www.gnb.ca/0000/as/ip-e.asp>.
- ♦ All public schools and Community Access Centres (CACs) located in public schools throughout New Brunswick now have **high-speed Internet capability**, thanks to an investment by the governments of Canada and New Brunswick. (The Atlantic Canada Opportunities Agency (ACOA) invested \$4,830,000 in this project, and the Province of New Brunswick is contributing an additional \$2,170,000. This funding is provided through the Canada/New Brunswick Regional Economic Development Agreement (REDA).)

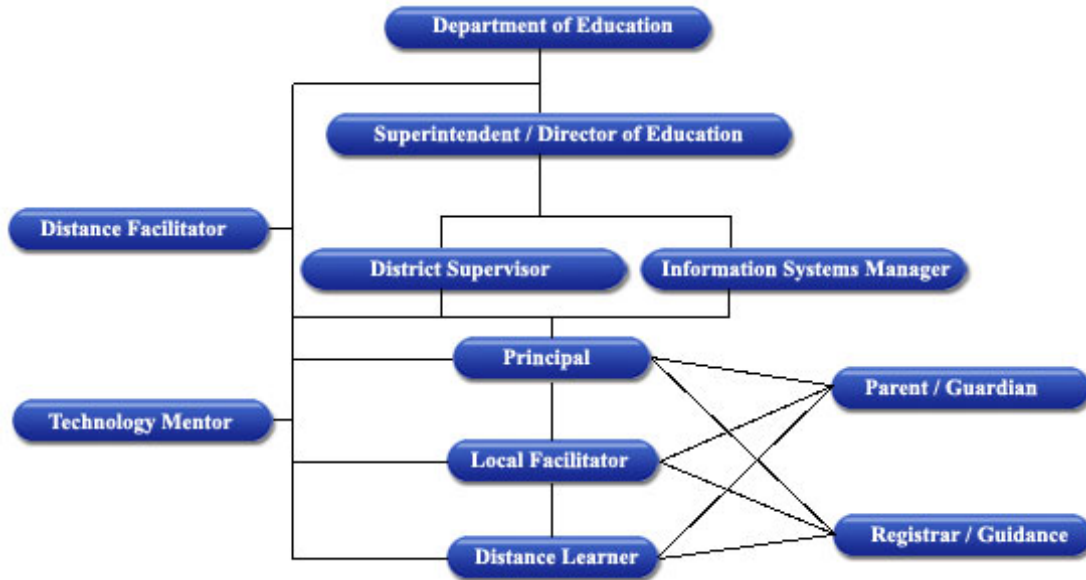
Distance Learning Network

The work described above is accomplished in part through the Distance Learning Network (see Diagram 1 below). The roles and responsibilities of the Department and other participants in the network are articulated in Table 13 below (see also http://ltt.nbed.nb.ca/dl_roles.asp).

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Diagram 1: Distance Learning Network – NB



LearnNB

LearnNB (<http://www.learnnb.ca/>) is a bilingual umbrella organization that promotes the development of e-learning and knowledge technologies. The Department has a seat on the board of LearnNB and has access to international markets through this consortium of e-learning providers.

Legislation

In addition to the roles and responsibilities articulated for the Distance Learning Network, New Brunswick's *Education Act*³⁵ and the policies governing the Department (<http://www.gnb.ca/0000/policies.asp>) appear to be fairly broad (see definition of school below). The *Act* thereby enables distance learning (online learning).

“school” means a structured learning environment through which public education is provided to a pupil;”

Summary

New Brunswick has taken a centralized collaborative approach to e-learning that is focused at the high school level. This is evidenced by their publicized *Quality Learning Agenda*, the establishment of the Distance Learning Network, their NB Education Portal, and the availability of several Department-developed online courses. It would appear that the *Education Act* and related policies are purposefully broad to enable e-learning.

³⁵ See <http://www.gnb.ca/0062/PDF-acts/e-01-12.pdf>

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Table 13: Roles and Responsibilities of the Distance Learning Network in NB

Network Participant	Role/Responsibilities
Department	<ul style="list-style-type: none"> ◆ Maintain quality assurance of distance learning courses ◆ Maintain distance learning portal (http://ltt.nbed.nb.ca/dl_ov.asp) to assure open access to the online courses ◆ Ensure the appropriate district administrators are made aware of on-line courses ◆ Develop and offer new distance learning courses ◆ Support districts to ensure schools have the resources to receive distance learning courses (for more information on hardware/software requirements, see http://ltt.nbed.nb.ca/dl_localres.asp) ◆ Apprise Information Systems Managers of the hardware and software requirements for online courses ◆ Provide a repository of the learning tools necessary to online course access ◆ Collaborate with District Supervisors to design and provide in-service for Local and Distance Facilitators ◆ Organize and host 'real' or 'virtually' meetings to assure effective online course delivery
The Superintendent / Director of Education	<ul style="list-style-type: none"> ◆ Support Distance learning and its philosophy ◆ Inform principals of the availability of distance courses ◆ Monitor district schools involved in Distance Learning and help resolve Distance Learning delivery issues
The Distance Facilitator	<ul style="list-style-type: none"> ◆ Develop course expectations for students ◆ Communicate course expectations to the student ◆ Provide support to the online students by frequent and timely communication ◆ Provide students with access to required distance learning tools ◆ Acquire working knowledge of course hardware and software requirements ◆ Improve technological skills to encourage course improvements ◆ Update course content ◆ Track student progress, difficulties, concerns and communicate them bi-weekly to the local facilitator ◆ Provide Districts and Department of Education with information and up-dates as requested ◆ Host collegial distance learning discussions and seminars ◆ Assist with in-service activities as required ◆ Attend distance facilitator meetings ◆ Participate with others on the Distant Learning listserv ◆ Invite course evaluation and accept suggestions for improvements ◆ Communicate any technical difficulties within the system to the Electronic Learning Communication Unit ◆ Visit schools, when requested, to assure the quality and effective delivery of Distance Learning
The District Supervisor	<ul style="list-style-type: none"> ◆ Acquire knowledge of on-line course offerings and of the Distance Registration process ◆ Review and become familiar with Roles and Responsibilities of each stakeholder in Distance Learning ◆ Collaborate with principals to communicate and encourage participation in Distance Learning and to ensure schools include distance courses in course selections and school handbooks ◆ Provide support to schools for Distance Learning by ensuring schools

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	<p>possess the hardware and software for distance learning</p> <ul style="list-style-type: none"> ◆ Accept the need for and support the acquisition of, resources required for (delivery of individual) Distance Learning course/s (link created, no?) ◆ Act as the main contact for and provide in-service to local facilitators in Distance Learning ◆ Provide appointed school personnel with up-to-date information concerning Distance Learning ◆ Act as liaison between all Distance Learning Network parties and the Department of Education ◆ Requisition equipment and software from the Department of Education and problem solve issues that may arise concerning them and in so doing, aid in the delivery of Distance Learning ◆ Requisition equipment and software from the Department of Education and problem solve issues that may arise concerning them and in so doing, aid in the delivery of Distance Learning
<p>The Information System Manager</p>	<ul style="list-style-type: none"> ◆ Support the principles of distance learning ◆ Know and understand the Roles and Responsibilities of each stakeholder in Distance Learning ◆ Consult with and advise schools, district supervisors and directors of education in the developing and monitoring of learning centers ◆ Liaise with Department of Education to develop distance learning centers ◆ Resolve Distance Learning equipment and software issues ◆ Communicate to district technicians their role in Distance Learning ◆ Provide district technicians with the tools required for distance learning implementation
<p>The Principal</p>	<ul style="list-style-type: none"> ◆ Contact the District Supervisor to discuss the acquisition of technology required to implement Distance Learning ◆ Review information on the ' courses delivered through distance ' learning' site and be cognizant of the skills and abilities students will require to be successful in the Distance Learning environment ◆ Select a local facilitator(s) and course registrar from the teaching staff who have the commitment, skills and abilities necessary to support the a Distance Learning program ◆ Ensure appropriate in-service is scheduled for the local facilitator(s) and the course registrar ◆ Develop an in-school registration process and policy for student enrollment in Distance Learning ◆ Ensure that student registration in the Distance Learning program is timely and complete and that students are provided with text materials for the course(s) ◆ Ensure that students fully understand and adhere to the Acceptable Computer Use Policy ◆ Dialogue with guidance counselors/registrar and the local facilitator regarding student progress
<p>The Parent / Guardian</p>	<ul style="list-style-type: none"> ◆ Encourage and support your child in his/her efforts to complete required work assigned by the Distance Facilitator ◆ Arrange computer time for your child at home, at a Provincial Access Center or at a local Library, to complete assigned work ◆ Know your child's userID and password to allow your access to the course site should you wish to view/understand what is expected of your son or daughter from the course in which s/he is registered ◆ Access/monitor your child's progress by employing his/her userID and password

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	<p style="text-align: center;">or by contacting the Local Facilitator</p> <p>* All courses, except Spanish and Networks that require special technology, can be accessed from any computer station at most any time.</p>
<p>The Local Facilitator</p>	<ul style="list-style-type: none"> ◆ act as a personal contact for the Distance Learner throughout the following four stages: <p>Start-up:</p> <ul style="list-style-type: none"> ◆ Review and have knowledge of courses delivered through distance ◆ Review the list of requirements necessary to effectively deliver Distance Learning courses <i>and</i> consult with the principal to assure course materials and technology tools are available to the school ◆ Understand and the registration process ◆ Know the skills and abilities a Distance Learner must have to be successful ◆ Meet with the Distance Learner and discuss his/her responsibilities in the process <p>Student Learning Process:</p> <ul style="list-style-type: none"> ◆ Meet with each student enrolled in Distance Learning during the first week of the course *see First Meeting Sample Agenda for a procedure outline ◆ Review with the Distance Learner the use of the communication tools like E-mail, Chat rooms, Web boards and Videoconference ◆ Liaise between students and Distance Facilitators, should there be technical interruptions or procedural difficulties ◆ Meet with students regularly throughout the semester, to help them create files for work storage, to lend assistance and to provide motivation *see sample agenda for On-going Meetings ◆ Maintain regular contact with Distance Facilitators and the Parent/Guardian of Distance Learner ◆ Arrange supervision for evaluations ◆ Maintain proper documentation throughout the year and report term marks to the appropriate school personnel
<p>The Local Facilitator (continued)</p>	<p>Technology and Technical Service Support:</p> <ul style="list-style-type: none"> ◆ Attend the in-service, ' Using Technology Tools to Support Distance Learning' ◆ Audit e-mail regularly, particularly during week one of the course ◆ Collaborate with District Supervisor to ensure all resources and technology needs are available ◆ Identify and immediately report any technical problems to the Help Desk ◆ Report any communication tool problems to the Distance Facilitator ◆ Conduct a refresher class on the Acceptable Computer use Policy with Distance Learners and file the signed policy paper work in students' files ◆ Ensure student access to required technology during school hours ◆ Inform students of the hardware and software required for the course outside of school hours <p>Communication between School and Distance Facilitator</p> <ul style="list-style-type: none"> ◆ Monitor student access to the course and academic progress in the course; communicate them to the appropriate stakeholder ◆ Inform the Distance Facilitator of illness or family issues that could impact the progress of a Distance Learner ◆ Consult with the Distance Facilitator concerning strategies to encourage and motivate Distance Learners ◆ Suggest to the Distance Facilitator any improvements in course content and/or

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	delivery that could impact effectiveness
The Registrar / Guidance Counselor	<ul style="list-style-type: none"> ◆ Review for understanding the course requirements, as outlined in courses delivered through distance , and consider the skills and abilities students will need to be successful in the Distance Learning environment before a student is registered ◆ Pre-determine if course materials and technology tools are in the school or can be acquired if requested ◆ Collaborate with the Principal to determine course delivery methods for each Distance Learner ◆ Communicate to staff and students the availability of courses and the process involved in Distance Learning ◆ Assist students with the selection, registration and in the understanding of the delivery method employed in Distance Learning ◆ Ensure the student registration process is complete and timely
The Distant Learner	<ul style="list-style-type: none"> ◆ Complete the Distance Learning Readiness Quiz ◆ Discuss the option of enrolling in Distance Learning with Parents/Guardians and the School Registrar/Guidance Counselor ◆ Realize the absolute necessity of having access to a computer outside school hours ◆ Review the following requirements of a Distance Learner with the Registrar/Guidance Counselor <i>before</i> registration. A serious candidate must: View learning positively Possess good reading comprehension and good writing skills Think critically and problem-solve effectively Work and learn well independently Commit required time to manage and complete the distance learning Possess basic computer skills ◆ Review, understand and follow the department of Education's Acceptable Computer use Policy ◆ Meet with the Registrar and arrange to enroll in the course ◆ Access a computer regularly outside school hours- at home, at a Provincial Access Centre, or at a Public Library ◆ Fill-out and submit the on-line survey once the course is completed

The currently available distance learning courses are listed in Table 14 below. Additional information about the prerequisites, facilitators, course content, and resources can be found at <http://www.gnb.ca/0000/as/dl-e.asp>.

Table 14: Distance Learning Courses in NB – 2006

Subject Area	Courses
English Language Arts	<ul style="list-style-type: none"> ● English 112A ● English 112B ● English 122 ● Media Studies 120 ● Writing 110
Mathematics	<ul style="list-style-type: none"> ● Geometry and Applications in Mathematics 112 ● Function and Relations 112
Languages	<ul style="list-style-type: none"> ● Mi'kmaq 110 ● Spanish 110 ● Spanish 120
Science	<ul style="list-style-type: none"> ● Biology 121 ● Biology 122

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	<ul style="list-style-type: none"> • Chemistry 111 • Chemistry 121 • Environmental Science 121 • Physics 111 • Physics 112
Technology/Vocational Education	<ul style="list-style-type: none"> • Accounting 120 • Computer Aided Design 110 • Computer Science 110 • Computer Science 120 • Digital Technologies 120 • FI Technical Support 110 • Information Technology 110 • Information Technology 120 • Introduction to Electronics 110 • Introduction to Accounting 120 • Technical Support 110
Home Economics/Family Studies	<ul style="list-style-type: none"> • Hospitality & Tourism 110 • Nutrition for Healthy Living 120
Social Studies	<ul style="list-style-type: none"> • Canadian Geography 120 • Canadian History 122 • Economics 120 • FI Law 120 • Law 120 • Modern History 111 • Modern History 113 • Physical Geography 110 • Political Science 120 • World Issues 120

7.5 Newfoundland/Labrador

Newfoundland/Labrador Department of Education – Centre for Distance Learning and Innovation (CDLI)

E-learning activities in Newfoundland/Labrador are the responsibility of the Centre for Distance Learning and Innovation (CDLI). The CDLI was founded in December 2000 by the Department of Education (<http://www.ed.gov.nl.ca/edu/>), in response to the recommendations of the 1999 Sparks-Williams Ministerial Panel on Educational Delivery (see final report entitled *Supporting Learning: Report of the Ministerial Panel on Educational Delivery in the Classroom (2000)*³⁶). Four recommendations from this report led to the establishment of CDLI:

Recommendation 58

that the province embark on a program to substantially increase the scope of distance education offerings in the schools through the establishment of a “Centre for Distance Learning and Innovation”.

Recommendation 59

that the Centre for Distance Learning and Innovation consist of a number of teachers, who may be termed Electronic Teachers or E-teachers, with primary responsibility for course delivery and evaluation and that, at the school level, teachers be assigned from the regular

³⁶ See <http://www.edu.gov.nf.ca/panel/panel.pdf>

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school allocation as mediating teachers to ensure appropriate interaction between students and E-teachers.

Recommendation 60

that an approach be taken to content packaging and delivery that is not totally dependent on high bandwidth technologies.

Recommendation 61

that most communications be through an Internet-based system incorporating e-mail, conference forums, Internet fax and similar devices, with minimal reliance on synchronous communications, fixed schedules or other constraining elements.

CDLI operates out of Memorial University and uses Stem~Net, the province's computer and communications network. The centre staff are responsible for program development and delivery, school services (including technology integration services), and systems administration. The team includes a director, a learning management system and multimedia specialist, an information systems design and management specialist, a web portal and learning-object repository specialist, a guidance counselor and a programmer.

The **mandate** of CDLI is to

- ♦ increase learning opportunities and career options for students; particularly those in small and isolated schools;
- ♦ develop and deliver e-learning programs and services for students and teachers, and in particular will develop and deliver courses for senior high school students;
- ♦ develop and deliver professional development programs for primary, elementary and secondary teachers;
- ♦ provide programs and services for other adult learners using the Internet; and
- ♦ develop and export educational products and services.

The **vision** of the Centre is to

- ♦ provide access to educational opportunities for students, teachers and other adult learners in both rural and urban communities in a manner that renders distance transparent;
- ♦ eliminate geographical and demographic barriers as obstacles to broad, quality educational programs and services; and
- ♦ develop a culture of e-learning in our schools which is considered to be an integral part of school life for all teachers and students.

The **goals** of CDLI are to

- ♦ develop and deliver Web-based courses for senior high school students enrolled in the primary, elementary and secondary school system in Newfoundland and Labrador;
- ♦ develop and deliver Web-based professional development programs for primary, elementary and secondary teachers in collaboration with other educational stakeholders in Newfoundland and Labrador;
- ♦ develop and deliver Web-based courses for adult learners in Newfoundland and Labrador;
- ♦ develop the knowledge and skills to enable senior high school students and younger adult learners to pursue careers in the knowledge-based economy in Newfoundland and Labrador;
- ♦ develop educational products and services that can be exported to other jurisdictions, in particular, the other school systems in Atlantic Canada; and
- ♦ participate in research and development related to innovations in the area of distance learning in collaboration with the Centre for TeleLearning and Rural Education, Faculty of Education, Memorial University of Newfoundland.

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More information about the *Centre for Distance Learning and Innovation* can be found at <http://www.cdli.ca> and at <http://142.163.234.202/mteam/CDLImanual04-05/cdlimanual2.htm>.

More information about the Centre for TeleLearning and Rural Education can be found at <http://www.tellearn.mun.ca/fhome.html> (see below for an excerpt).

“The Mission of the Centre for TeleLearning and Rural Education is to facilitate research and development with a special focus on effective utilization of information and communications technologies as well as promote excellence in teaching and learning in small rural schools across the islands, regions and countries of the North Atlantic Rim; and, in particular, the Province of Newfoundland and Labrador.”

Currently-Available Online Courses

e-Courses (described as courses that are the same as those taught in the classroom except the teacher is at another location and the instruction and communication between students and the “e-teacher” are mainly through the Internet) currently being offered through CDLI are listed in Table 15 below (retrieved January 10, 2006 from <http://www.cdli.ca/index.php?PID=CourseInfo/ViewCourses>).

The Virtual Teacher Centre

To support teacher professional development generally and with respect to online learning, the Newfoundland and Labrador Teachers Association and the Department of Education have jointly developed the **Virtual Teacher Centre** (VTC, <http://www.virtualteachercentre.ca>). The Virtual Teacher Centre has a mandate to develop, facilitate and deliver professional and program support to teachers throughout Newfoundland and Labrador. VTC works with educators, as well as in partnership with Memorial University and the Department of Education, in the development and delivery of content.

Legislation

*The Schools Act, 1997*³⁷ appears to be broad enough in its definitions and clauses to enable e-learning.

Summary

Newfoundland and Labrador are taking a centralized collaborative approach to e-learning in the province with a focus at the high school level. The mandate, vision and goals of the Centre for Distance Learning and Innovation demonstrate the commitment of the Department to e-learning. The number of courses currently available and the activities with its various partners (i.e., Centre for TeleLearning and Rural Education and the Virtual Teacher Centre) illustrate the actions they are taking to achieve their goals.

Table 15: CDLI Courses (2005-06)

CDLI Courses

Academic Mathematics 2204, 3204, 3205
Art and Design 3200
Canadian Economy 2203
Career Development 2211
Enterprise Education 3205
French 3200
Healthy Living 1200

Academic Mathematics 3103, 2205, 3207
Art Technologies 1201
Canadian History 1201
Chemistry 2202
Communications Technology 2104/3104
French 2200, 3201
Integrated Systems 1205

³⁷ See <http://www.hoa.gov.nl.ca/hoa/statutes/s12-2.htm>

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Mathematics 1204
Physics 3204
World Geography 3202

Physics 2204
Science 1206
Writing 2203

CDLI Resource Courses

AP Biology 4221
AP Math 4225
Career Exploration 1100

AP Chemistry 4222
AP Physics 4224
Science 2200

7.6 Northwest Territories

Northwest Territories Department of Education, Culture and Employment

The Northwest Territories Department of Education, Culture and Employment (<http://www.ece.gov.nt.ca/>) has articulated its policies in a document entitled, *Education, Culture and Employment Establishment Policy (Revised April 1, 2005)*³⁸. This document lays out the mandate for the Department:

“to provide residents of the Northwest Territories with access to quality programs, services and support to assist them in making informed and productive choices for themselves and their families with regard to education, training, careers, employment and labour, child development, languages, culture and heritage.”

This policy document broadly outlines the principles, scope, authority and accountability, provisions, administration, and prerogative of the executive council. Given the broad statements in this policy document, specific policies related to e-learning are not evident.

However, the report *Towards Excellence (2004)*³⁹ describes participation in online learning at the senior secondary level. The NWT has 42 percent of its schools with students participating in online learning compared to the national average of 14 percent. The isolation of NWT students means that online learning provides a cost effective way to extend learning possibilities.

In support of this report, the document entitled *Building on Our Success: Strategic Plan 2005-2015*⁴⁰ articulates several actions that would suggest an increased emphasis on e-learning.

For example, Goal 2: Education of Children and Youth and its accompanying vision – “northern families developing a strong foundation for their childrens’ learning” are of interest. The second objective for this goal is “Students Achieving Their Potential”. A priority for objective 2 is to “expand course offerings in schools.” Several of the actions described to address this priority have implications and suggest possibilities for Alberta’s relationship with NWT in the area of online learning such as:

- ♦ Maintain linkage of high school curriculum with that used in the Province of Alberta;
- ♦ Provide a broader range of choices at the senior secondary level - particularly those related to preparation for occupations;
- ♦ Support the development of Aboriginal language and culture materials linked to the Dene Kede and Inuuqatigiit curricula;
- ♦ Complete a review of small high schools with the goal of defining best approaches to programming and funding; and

³⁸ See [http://www.gov.nt.ca/publications/policies/ECE/Establishment_Policy_\(71.00\).pdf](http://www.gov.nt.ca/publications/policies/ECE/Establishment_Policy_(71.00).pdf)

³⁹ See p 55-56 <http://www.ece.gov.nt.ca/WEB%20PDF/Towards%20Excellence%202004.pdf>

⁴⁰ See <http://www.ece.gov.nt.ca/WEB%20PDF/Buildingonoursuccesses.pdf>

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- ♦ Examine alternative models of senior secondary delivery.

Similarly, Goal 3: Adult and Post-Secondary Education and its accompanying vision – “northern adults continuing to learn and grow to meet the requirements of daily living” are of interest. The first objective for this goal is “Access and Choice for Adult Learners.” A priority for this objective is to “establish high school certification of adult learners.” An action described to address this priority has implications and suggests possibilities for ADLC’s relationship with NWT in the area of online learning (i.e., the stated action is, “further develop the existing partnership with Alberta Distance Learning to increase course offerings for adults”).

Legislation

The *Education Act*⁴¹ (current as at Jan 1, 2006) makes reference⁴¹ to the fact that educational bodies have the power to:

“authorize, supervise and evaluate the use of distance learning programs in the provision of the education program;”

This suggests some flexibility in the Act related to e-learning, however distance learning is not defined in the *Act* nor are exceptions made for this type of program in terms of regulations related to attendance.

Summary

The Northwest Territories recently released a broadly sweeping strategic plan that articulates goals, objectives and actions that involve expanding e-learning within the territory. The Department describes a centralized approach that involves maintaining linkages with Alberta Education in terms of the use of their curriculum and furthering their partnership with the Alberta Distance Learning Centre.

7.7 Nova Scotia

Nova Scotia Department of Education – Vision for the Integration of Information Technologies

The Department of Education in Nova Scotia (<http://www.ednet.ns.ca/>) released *Vision for the Integration of Information Technologies within the Nova Scotia Public School System*⁴² in 1999. This vision was revised in 2005 with the publication of *The Integration of Information and Communication Technology within the Curriculum*⁴³. Although not directly related to e-learning policy and legislation, this vision document and the update provide a foundation upon which e-learning environments could be built and hence informs practice. Like Manitoba’s *Technology as a Foundation Skill* and Alberta’s ICT Program of Studies, the purpose of this document is to provide the foundation for the integration of information technology within the prescribed curricula of the public school system.

The Department describes and rationalizes their vision as follows:

Information technology (IT) “is properly deployed in education to support, sustain and improve learning. Learning, in turn, sustains Nova Scotians as we develop culturally and economically. Our ability to understand, manage and integrate IT directly affects the quality of our lives and culture.”

⁴¹ See <http://www.justice.gov.nt.ca/PDF/ACTS/Education.pdf>

⁴² See http://www.ednet.ns.ca/pdfdocs/lrt/vision_e.pdf

⁴³ See <http://lrt.ednet.ns.ca/pdf/ICT.pdf>

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“The educational use of IT best improves learning when those technologies are accessible, flexible, responsive, participatory, and integrated thoroughly into all public school programs.”

This vision document goes further by describing ways that IT can be integrated into provincial curricula to provide a wide variety of learning experiences. An answer to the question, *Why use information technology?*, is proposed and expected results are articulated. Key stage outcomes and illustrative examples are provided in each of five areas including: Basic Operations and Concepts; Productivity Tools and Software; Communications Technology; Research, Problem Solving and Decision Making; and Social, Ethical and Human Issues.

In February 2004, the Department struck a committee to coordinate the development and delivery of online courses and the online delivery of professional development. That committee is currently developing a long range strategic plan for online learning. In the interim, the committee coordinates access to an online pilot for students in small high schools.

Key to realizing this vision is EDnet. Administered by the Department of Education and Aliant, **EDnet** is a Wide Area Network (WAN) that provides education and related organizations – approved by the Department of Education – with cost effective data communications for connection to the Internet, distance education, and administrative computer applications. As part of the online services provided, EDnet offers resources for educators (e.g., curriculum-related web sites, links to projects and initiatives (e.g., ARTreach), educator webBoards, a copyright-cleared database of images, access to online videos (MEWS), professional development resources, and more).

Activities in the Field

Learning Core French Online (Grade 12) is a pilot project that was initiated in September 2002 with funding from Heritage Canada (see <http://corefrench12.ednet.ns.ca/> for more information). Through the use of live/real time sessions in combination with an asynchronous Web-based system, students are able to construct meaning and discuss various topics in French with their peers and teacher. This project has been extended to include the development and delivery of online professional development for teachers of French as a second language.

Three major initiatives are occurring at the school board level, the newest being the Chignecto Virtual High School (<http://cvhs.ednet.ns.ca>). The Chignecto Virtual High School is a web-based approach to integrating inquiry-based methods and technology into the delivery of the Nova Scotia senior high school curriculum. Modules are constructed to engage learners in experimentation, discovery, conjecture-making, and other forms of higher-order thinking.

A provincial/school board committee is working to coordinate these initiatives, develop a long range strategic plan and manage a pilot in e-learning for small high schools.

Legislation

As in other jurisdictions, *The Education Act and Legislation Under the Education Act, Consolidated September 2002*⁴⁴ does not refer to e-learning in any form. It also prescribes hours of instruction, and attendance requirements in keeping with a “bricks and mortar” philosophy.

⁴⁴ See http://www.ednet.ns.ca/pdfdocs/legislation/consolidated_act.pdf

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However, Article 49 of the *Agreement Between The Minister of Education of the Province of Nova Scotia and the Nova Scotia Teachers Union*, January 2003⁴⁵ stipulates responsibilities of the teacher, school and school board related to the delivery of distance education. That agreement also includes provision for a tri-partite committee (Nova Scotia Teachers' Union, Nova Scotia School Boards Association, Department of Education) to review changes to distance education.

Summary

In addition to key components required to support an e-learning community in Nova Scotia (e.g., EDnet, access to computers and software, availability of some online resources, an online learning pilot project), the Department of Education is working with education partners to develop a long range strategic plan for online delivery of public school courses and professional development for teachers.

7.8 Nunavut

Nunavut Department of Education

The Nunavut Broadband Task Force commissioned by the Nunavut Department of Education (<http://www.gov.nu.ca/education/eng/>) released a document in 2002 entitled *Sivumuuqpallianiq, Moving Forward: Strengthening our Self-reliance in the Information Age*⁴⁶. This document put forward the following seven principles:

1. Support Our Oral Culture
2. Provide Universal, Affordable Access
3. Communities Come First
4. Build Capacity in the Private Sector
5. Provide Equality of Access to Public Services
6. Promote Our Language and Culture
7. Ensure Advancement and Innovation of Services

In addition to making recommendations related to connectivity, bandwidth, content development, and ICT literacy, the following recommendations were put forward related to providing equality of access to public education:

“Recommendations

5.1 Education

The Government of Canada and the Government of Nunavut (Education) ensure that funds are made available to support the use of broadband in the education sector within Nunavut.

5.2 Education – Securing And Managing E-Learning Opportunities

The Government of Nunavut (Education/Finance & Administration) should use assistance available from the Government of Canada to ensure that selected e-Learning broadband initiatives are identified, prioritized and documented in proposals so that research, analysis, planning, project management and execution of e-Learning initiatives can be implemented without delay.

Specifically, the Government of Nunavut should ensure that available funding opportunities from the Government of Canada and other parties are identified, that successful proposals are developed, and that projects are managed professionally.”

These recommendations would suggest a strong desire to implement an e-learning strategy in the territory. This desire was confirmed in conversation with Department staff, especially for outlying and small settlements schools.

⁴⁵ See <http://www.ednet.ns.ca/pdfdocs/fed-prov/NSTUEnglish2003.pdf>

⁴⁶ See http://www.gov.nu.ca/education/eng/pubdoc/broadband_e.pdf

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Staff also indicated that the Department is working closely with Industry Canada to increase bandwidth in an effort to allow for a more interactive e-learning environment.

Nunavut is a member of the Western Northern Canadian Protocol. Nunavut currently uses the following Alberta curricula: English Language Arts, Mathematics, Social Studies (secondary), French, Fine Arts (art, music, drama), some Science courses, Physical Education, Career and Technology Studies (CTS), Career and Life Management (CALM), and Work Experience. As is the case in NT, NU may consider using online learning programs offered by Alberta providers as their e-learning strategy is implemented.

Legislation

The education act for the Nunavut Department of Education is under development. Nunavut is currently operating under the Northwest Territories Education Act (see Section 7.6 in this *Profile*).

Summary

There is a strong desire by the Nunavut Department of Education to move toward a well managed e-learning strategy, however, as a fledgling government/department, they are currently in the process of capacity building.

7.9 Ontario

Ontario Ministry of Education e-Learning Strategy

In September 2005, the Ministry of Education in Ontario (Elementary and Secondary Education – <http://www.edu.gov.on.ca/eng/general/elemsec/elemsec.html>) initiated **e-Learning Ontario** (<http://oknl.edu.gov.on.ca/eng/default.asp>) from its previous program, the Ontario Knowledge Network for Learning, to implement a provincial e-learning strategy that they suggest will provide all students with access to high quality online courses and resources. This strategy had its origins in a paper released in March 2000, entitled, *A Roadmap for Learning In the 21st Century Knowledge Economy: An Ontario Knowledge Network for Lifelong Learning*⁴⁷, which stated:

“The debate is over – computers, the Internet, and communications technology are coming together in a way that is changing the way individuals acquire knowledge and skills and the way learning services are managed. It is no longer a question **if** computers are important to learning – it is a question of **how** best to use the power of these technologies to support learning, wherever and whenever it takes place. “

“To define a new vision for a technology-enabled learning system and make that vision real requires all of the stakeholders in the system to focus their creative energy and resources in a common cause - to secure the competitive position of both Ontario and Canada in the 21st Century knowledge economy. Investment in new technologies for the delivery and management of learning will be guided by a common understanding of the role technology can and will play in the lives of Ontario citizens whether at home, at work, in their communities or in educational institutions at all levels.”

As is being done in this *Profile*, e-Learning Ontario draws on strategies from other jurisdictions including New Brunswick, Newfoundland/Labrador, United Kingdom, Australia/New Zealand, the European Union and selected States in the US.

The Ontario Knowledge Network for Learning - the predecessor to e-Learning Ontario - asked school boards about the state of e-learning in the fall of 2004. Directors of education, technical staff, teachers, parents, students and other stakeholders responded to a survey, the

⁴⁷ See http://oknl.edu.gov.on.ca/eng/pdf/1_3_9.pdf

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results of which are available at http://oknl.edu.gov.on.ca/eng/overview/1_1_2_1.asp. The survey provided information about current e-learning offerings, presented key findings about the quality of education, development and delivery of courses and resources, priorities for e-learning, student supports, funding, policies and administration, professional development and technical challenges, and respondents' experiences with e-learning. With respect to policies and administration, the following results were reported:

Policies and Administration

The majority of respondents suggested that a day school register is the preferred method for registering students.

Almost half of the respondents thought that the definition of the school day and school year currently provides enough flexibility to administer an e-learning program. Some respondents recommended that students be given the option of continuous entry throughout the year, which would require amendments to the regulations.

Suggestions to ensure the authenticity of student work ran the complete spectrum, from involving the ministry to maintaining control of this issue at the district school board.

Slightly more than half of the respondents thought that current regulations dealing with class size and minimum teaching assignments do not offer enough flexibility for e-learning.

An Executive Summary of the survey results is available at http://oknl.edu.gov.on.ca/eng/overview/1_1_2_1_1.asp.

Also in 2004, OKNL worked in conjunction with the Council of Directors of Education (CODE) to obtain information on e-learning enrolment. The results of that survey are available at http://oknl.edu.gov.on.ca/eng/overview/1_1_2_2.asp and cover topics including:

- ♦ Current Enrolment Registers
- ♦ Recommended Enrolment Practices
- ♦ Funding
- ♦ Scheduling of Courses
- ♦ E-Learning Credits Granted in 2003-04
- ♦ Future E-Learning Credits
- ♦ Students Outside Board Boundaries.

In response to the issues raised by these surveys, the Ministry of Education has developed a provincial e-learning strategy (<http://oknl.edu.gov.on.ca/eng/strategy/default.asp>).

Elements of the strategy include:

- ♦ policies and guidelines (http://oknl.edu.gov.on.ca/eng/strategy/1_2_3.asp) to govern e-learning and ensure equitable access for all students (Note: The mandate for and documents related to e-learning are also linked from this page.);
- ♦ proposed provincial standards (http://oknl.edu.gov.on.ca/eng/strategy/1_2_3_2.asp) for e-learning content;
- ♦ a sustainable funding model for schools boards;
- ♦ a provincially-licensed Learning Management System to manage courses (online course overview for 2005-06 at http://oknl.edu.gov.on.ca/eng/strategy/1_2_1_1.asp);
- ♦ a Learning Object Repository with initial content of hundreds of resources (http://oknl.edu.gov.on.ca/eng/strategy/1_2_2.asp);
- ♦ professional development for teachers;
- ♦ ongoing engagement with education stakeholders in the development and delivery of e-learning;
- ♦ technical considerations (http://oknl.edu.gov.on.ca/eng/strategy/1_2_5.asp); and
- ♦ direction about implementation, roles and responsibilities as well as operational matters.

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The policies and guidelines are in the process of being formulated based on the mandate issued by the Department in August 2004 (http://oknl.edu.gov.on.ca/eng/pdf/1_4_2.pdf). Direction to school boards and schools will be provided by way of a Policy/Program Memorandum about the implementation of e-learning.

Proposed provincial standards are prescribed in terms of curriculum connections, quality, Canadian orientation, language level, pedagogy, instruction, and interactivity, assessment, bias, accessibility, use of technology, and design and aesthetics. Desktop guidelines and suggested connectivity solutions as well as information about videoconferencing can be found at http://oknl.edu.gov.on.ca/eng/strategy/1_2_5.asp.

Activities in the Field

As in Alberta, some districts are already engaged in e-learning. For example, the Toronto District School Board offers virtual schooling through its **TDSB Virtual School** (see http://www.tdsbvirtualschool.com/virtual_school/ for more information).

Legislation

The *Education Act R.S.O. 1990, CHAPTER E.2*⁴⁸ appears to be broad enough to enable e-learning however some inconsistencies in use of language exist. See definition for school below.

“school” means,

- (a) the body of elementary school pupils or secondary school pupils that is organized as a unit for educational purposes under the jurisdiction of the appropriate board, or
- (b) the body of pupils enrolled in any of the elementary or secondary school courses of study in an educational institution operated by the Government of Ontario,

and includes the teachers and other staff members associated with the unit or institution and the lands and premises used in connection with the unit or institution; (“école”)

Summary

Ontario has taken a centralized collaborative approach to e-learning in the province by initiating the e-Learning Ontario program as part of its overall e-learning strategy. Elements of their strategic plan include policies and guidelines, proposed provincial standards, a sustainable funding model, a provincially-licensed learning management system, a learning object repository, teacher professional development, technical specifications and solutions, and direction about implementation (i.e., roles, responsibilities, operational matters).

7.10 Prince Edward Island

Prince Edward Island Department of Education

PEI’s Department of Education (<http://www.gov.pe.ca/educ>) *Strategic Plan 2000-2004*⁴⁹ states:

“Technology provides valuable tools for educational and/or administrative support in many of the department venues. In particular, the emergence of information technology over the past 10 years has yielded many benefits to learners generally, but it also raised many complex challenges for the Department of Education. Information technology continues to change at a rapid rate of speed which creates several issues for the department. Adaptation to new technologies requires an examination of philosophy and intent on why, how and the extent to which technology will be incorporated into the department programs and services. The question of how to address high

⁴⁸ See http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90e02_e.htm

⁴⁹ See http://www.gov.pe.ca/photos/original/ed_stratplan04.pdf

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public expectations for the integration of technology into curriculum and service delivery generally must be addressed. Other technology issues include:

- ♦ equitable access to technology,
- ♦ equipment maintenance service levels,
- ♦ current standards for hardware/software, as well as
- ♦ appropriate training given the diverse knowledge levels of students, teachers and staff.

All of the aforementioned issues must be examined within the context of the extent of the department commitment and the ability to invest financial and human resources in order to realize the benefits of technology in a most effective and cost-efficient manner.”

Although the plan does not explicitly speak to e-learning, to achieve the goal of improving lifelong learning outcomes in PEI, the Department is committed to “improving access for learners.” Improved access could take the form of e-learning and it would appear that towards this aim, learning objects and online tutorials are in the planning stages as evidenced by the placeholders that exist on the learning and teaching resources page on the Department’s web site.

Legislation

The *School Act and Regulations*⁵⁰, as is the case in several other jurisdictions, uses language that is somewhat limiting to e-learning environments. See examples below.

“(u) “school” means a building or a part of a building which is designated as a school”

“53. A school board shall regulate the attendance of students and is responsible for the enforcement of the attendance provisions of this Act. 1993,c.35,s.53.”

“Compulsory Attendance at School -(2) Subject to sections 70, 74 and 75, all persons of compulsory school age residing in the province, who have not graduated from high school shall attend school.”

Summary

Prince Edward Island’s most recent strategic plan speaks to improving access for learners, however it does not speak directly to the approaches that might be used to improve access. It would appear that work may be underway at the Department to offer learning objects and online tutorials, however, no concrete plans are publicized. Existing legislation uses language that may be limiting to e-learning environments.

7.11 Québec

ministère de l’Éducation du Québec (http://www.mels.gouv.qc.ca/GR-PUB/m_englis.htm and <http://www.mels.gouv.qc.ca/>)

Quebec is unique in Canada in that distance education (defined as learning where teacher and student are physically separated) is not currently permitted for students under 16 years of age. A memoir released in November 2005 by Société de formation à distance des commissions scolaires du Québec raises questions about this policy. (See *La formation à distance au secteur des jeunes - Ce qui se fait ailleurs, la problématique québécoise et une proposition, November 2005*⁵¹ for more information.) It is likely that this memoir will generate much discussion at the Ministry and within the K-12 learning community about the future of e-learning in Quebec.

Activities in the Field

⁵⁰ See http://www.gov.pe.ca/law/statutes/pdf/s-02_1.pdf

⁵¹ See http://www.sofad.qc.ca/pdf/SOFAD_Avis_FD_jeunes.pdf

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The K-12 community in Québec is engaged in several activities related to e-learning. These activities and the participants involved are described below.

SOFAD <<http://www.sofad.qc.ca/>> is a non profit organization, supported by the ministère de l'Éducation du Québec. SOFAD has a mandate to:

- ♦ generate awareness of distance education and promote it among all concerned individuals and organizations;
- ♦ develop the plan of secondary level distance education services that SOFAD offers its partners;
- ♦ develop, produce or co-produce, and sell learning materials designed for general and vocational distance education at the secondary level;
- ♦ develop, produce or co-produce, and sell learning materials designed for general education in adult education centres;
- ♦ foster the use of new technologies in order to make the best use of educational opportunities in distance education at the secondary level;
- ♦ carry out the studies and research required to attain SOFAD objectives and to generally ensure the expansion of distance education at the secondary level; and
- ♦ encourage all relevant partnerships with others in the fields of education and work, and with any other organization.

SOFAD produces self-paced distance education materials that are aligned to secondary level provincial curricula for adult education in French and English. The materials are sold for a nominal fee to school boards for use in classrooms and for distance learning. Though based on adult education programs, the youth sector makes use of these self-paced materials for specific needs (e.g., summer school) or to support alternative programs (e.g., learner-paced high school).

Although many of the courses are print-based, SOFAD is also actively pursuing the development of online courses. eduSOofAD (<http://edusofad.com>) is SOFAD's e-learning portal and as such, offers several online courses for general and vocational training. For students, access to the online courses may be purchased directly online or via a school board. For instructors, free access to the online courses is provided. Committed to self-paced learning, SOFAD is exploring ways of supporting and facilitating peer communication, collaboration and cooperation into the self-paced online courses and are contributing to related research in the area.

For demos of the online courses currently being offered and for information about upcoming courses, see the "courses and services" or "Cours et services" links respectively on the English and French eduSOofAD web sites. For more information about eduSOofAD, contact Samantha Slade at 514-529-2177 or at info@sofad.qc.ca.

Télé-Québec is a source of educational programming in Québec. The mission and goals of Télé-Québec (<http://telequebec.tv/>) are to:

- ♦ operate a educational and cultural telecommunications enterprise and to guarantee access to the public;
- ♦ produce and distribute audiovisual, multimedia, and telecommunications documents, with an understanding of the products and accompanying documents; and
- ♦ develop a thirst for knowledge, to promote artistic life and culture, and to reflect the regional realities and diversity of Quebec society.

In support of this mission, Télé-Québec makes the resources of **TVOntario's Curriculum Resource Bank** (CRB) available for use in schools in Quebec (with user codes and passwords). In addition to the learning objects and lessons in the CRB, a video-streaming

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pilot is currently underway. These resources have the potential to support an e-learning environment.

Supported by funding from the Québec-Canada Entente for Minority Language Education, the **Québec English Schools Network (QESN-RÉCIT)**

(<http://www.qesnrecit.qc.ca/index.php>) aims to support and promote pedagogical collaboration and innovation among their community of learners. Each of the following web sites represents the efforts that are being made by QESN-RÉCIT toward this aim.

1. Founded by Central Quebec, Eastern Shores and Western Quebec school boards in partnership with the Ministry, the **Distance Education Community Network (DECN) Portal, eLEARNING Connections** (<http://www.decn.qc.ca>), strives to provide educational services and support through e-learning initiatives to Anglophone communities of learners within Québec. Their goals are to provide equity of access to high-quality learning and to promote success for all Quebec Anglophone students. DECN provides: access to advanced-level mathematics and science courses to schools in areas where numbers are small or where there is a lack of qualified teaching personnel; access to e-learning resources to assist students to pass compulsory courses for graduation; alternate learning environments to meet individual learning styles or social needs; and access to option courses that may not be available at a school site but are of interest to individuals or important to future career plans. Collaba portal software and the HorizonLive e-learning platform drive this portal. Courses currently being offered include:

- ♦ Media Studies 514
- ♦ Biology 534
- ♦ Chemistry 534
- ♦ Mathematics 436
- ♦ Mathematics 514
- ♦ Mathematics 536
- ♦ History 414
- ♦ Music 444
- ♦ Physical Science 416
- ♦ Physics 534
- ♦ Computer Science 552

2. The **ICT Leaders and Learners** web site (<http://www.qesnrecit.qc.ca/leader/index.php>) supports teachers' professional development in the area of information and communications technologies by providing a wide range of information (e.g., trends, collaborative tools, open source software, virtual communities, podcasts, weblogs, laptop schools, etc.). These resources are in English only.
3. The **PlanIt! PlanIf!** web site (<http://planit.qesnrecit.qc.ca/>) is a curriculum planning resource offered to teachers in both English and French, to assist them in designing learning experiences based on the Québec Education Program. Although this tool is not directly related to e-learning, it would support teachers regardless of the teaching and learning environment in which they work.
4. The Québec English Schools Network, the Western Québec School Board and the Ministry have joined forces to provide **The Connected Classroom** web site (<http://www.qesnrecit.qc.ca/cc/index.php>) which helps teachers integrate ICTs. These resources are available in English only.
5. The **School Improvement in Québec** web site (<http://www.qesnrecit.qc.ca/reform/success/schools/nans.php>), is designed to provide resources and an online think tank to assist Québec Anglophone schools, boards and centres in developing their strategic plans, action plans, success plans, policies and objectives as well as annual reports based on recent provisions to the Education Act.

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Legislation

The *Education Act*⁵² in Québec does not reference e-learning or any form of distance education, however it appears that there is some degree of latitude afforded to administrators in terms of enabling e-learning programming.

Summary

Given current provincial policy regarding educating students at a distance when they are under 16 years of age, the ministère de l'Éducation du Québec has not taken an active role in e-learning in the province. Although not actively leading efforts towards e-learning, the ministère does appear to be collaborating with and/or financially supporting efforts to address the needs of the information age that have been identified as appropriate to or needed within local communities (e.g., Québec English Schools Network, SOFAD).

7.12 Saskatchewan

Saskatchewan Learning – E-Learning Branch

Saskatchewan Learning (<http://www.sasked.gov.sk.ca/index.shtml>) recently established the E-Learning Branch whose key function is to provide leadership in the development and implementation of a provincial vision and strategic direction for technology-enhanced learning. This work is being done in collaboration with sector partners. Their vision is to provide “*equitable access to quality teaching and learning opportunities for all Saskatchewan learners*”. The branch consists of six units:

1. The **Correspondence School** which develops and delivers online courses based on Saskatchewan curriculum. CentraliSchool (<http://www.centralischool.ca/>) accepts all registration for online courses offered by the Saskatchewan Government Correspondence School (SGCS). Courses are delivered using Blackboard and WebTrain Communications software. For a list of 2005-2006 course offerings see http://www.sasked.gov.sk.ca/branches/elearning/correspondence/courses/delivery/semester_based.pdf.
2. The **Educational Technology Consortium** (www.sasketc.ca) which advises the provincial government regarding policy for e-learning and technology in K -12 education as well as delivers ICT, e-business, e-learning and professional development services to the K-12 sector. The Consortium is a partnership representing the following organizations:
 - ♦ Saskatchewan Association of School Business Officials (SASBO)
 - ♦ Saskatchewan League of Educational Administrators, Directors and Superintendents (LEADS)
 - ♦ Saskatchewan Learning
 - ♦ Saskatchewan School Boards Association
 - ♦ Saskatchewan Teachers' Federation (STF)

The E-Learning Advisory Committee of the Educational Technology Consortium is now accepting applications for web-based learning resource development and ever-greening.

3. The **Learning Technology Unit** which is responsible for developing and coordinating implementation of the government's long-term vision, strategies, programs, and policies for use of technologies in K-12 education.

⁵² See

http://www2.publicationsduquebec.gouv.qc.ca/dynamicSearch/telecharge.php?type=2&file=/I_13_3/113_3_A.html

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4. The **Network Services Unit** which is responsible for the oversight, coordination, scheduling, and administration of satellite, CommunityNet, and other electronic technologies to support the distribution of educational programming. Note: CommunityNet is a broadband, high-speed, province-wide telecommunications network (see <http://www.communitynet.ca/intro.html> for more information).
5. The **Operations Unit** which supports teaching and learning by providing technical, business and program administration, management, and client-oriented services to parents, teachers and learners; the Saskatchewan Government Correspondence School, the E-learning Branch, other branches in the Department and Learning sector.
6. The **Technology-Enhanced Learning Unit** which works with Saskatchewan post-secondary institutions and other partners to develop provincial strategies and initiatives that extend access and enhance program quality in post-secondary education and training through effective use of technologies.

In addition to the activities and services described above, Saskatchewan Libraries and Saskatchewan Learning offer online access to InfoTrac, CBCA/REPÈRE and Canadian Newsstand Dailies Databases. This is only part of a larger collection of web-based resources (see http://www.sasklearning.gov.sk.ca/pls/urlldb/udb_pkg.main) managed by the Instructional Resources Unit (see http://www.sasked.gov.sk.ca/branches/curr/evergreen/resources_main.shtml for more information).

Legislation

As can be seen in Table 16 below, the *Education Act (1995)*⁵³ in Saskatchewan allows for and details flexible rules regarding attendance, school hours and the length of the school year (all of which have relevance in e-learning environments).

Summary

Saskatchewan Learning has taken a centralized approach to e-learning, collaborating with and seeking advice from the Educational Technology Consortium, as well as offering online courses through the Saskatchewan Government Correspondence School. Existing legislation is enabling of e-learning.

Table 16: Excerpts from the Education Act (1995), SK

<p>Exceptions to school attendance</p> <p>157(1) A pupil may be exempted from attendance at a school, and no parent, guardian or other person is liable to conviction for an offence pursuant to section 156 where:</p> <p>(a) the pupil is under a program of instruction elsewhere with the approval of the board of education or the conseil scolaire;</p> <p>(b) the pupil is in attendance at a registered independent school;</p> <p>(c) the pupil is receiving instruction in a registered home-based education program;</p>
<p>School hours</p> <p>164(1) Subject to subsections (2) to (4.1), the program of instruction in schools is to be conducted between 9:00 a.m. and 12:00 noon and between 1:00 p.m. and 3:30 p.m. on each school day.</p> <p>(2) On receipt of a request from a board of education or the conseil scolaire, the minister may authorize the board of education or the conseil scolaire to conduct classes or other educational activities during periods of each school day other than the periods mentioned in subsection (1).</p>
<p>Variations in length of school year, etc.</p>

⁵³ See <http://www.qp.gov.sk.ca/documents/English/Statutes/Statutes/E0-2.pdf>

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167 Where a board of education or the conseil scolaire has divided the school year, pursuant to clause 163(1)(c), for one or more of its schools, the board of education or the conseil scolaire may, with the approval of the minister, provide for variations from the provisions of sections 163 to 166 pertaining to the length of the school day, the length of school year, holidays and vacation periods with respect to the schools affected.

7.13 Yukon

Yukon Department of Education

Yukon is on a path towards technology-enabled distance education as evidenced by the news releases found on the Department of Education home page (<http://www.education.gov.yk.ca/index.html>). Specific references are made to their use of videoconferencing and blogging. See an excerpt below:

"The Government of Yukon has introduced video conferencing technology in our schools because we want to provide the best possible learning environment for our students," Education Minister John Edzerza said. "Due to the remote locations of many of our communities, distance learning is often a necessity for some students. Using video conferencing can really enrich the learning experience and help increase student success."

"If students choose to undertake distance education, video conferencing provides them with an enhanced learning environment and it gives them access to a larger educational 'community'," JoAnn Davidson, Education's Technology Assisted Learning coordinator, said. "Through video conferencing, students in rural areas now have the opportunity to participate fully in classes with their urban counterparts, and with students from other Yukon community schools."

The Yukon Education Student Network (<http://www.yesnet.yk.ca/>) also supports distance education by offering an integrated communications system that helps to support students and teachers through e-mail, online conferences, and electronic data storage. YESNet also links to student projects, an assortment of educational web links for students as well as web-based curriculum resources for teachers, and resources related to technology-assisted learning.

Distance education courses, both print and online, are available to Yukon students to expand learning opportunities in small rural schools and to provide flexibility in programming in all schools. These courses are offered at no cost to students from Grade 4 to 12.

The Public Schools Branch began offering distributed learning courses in January 2000. These Internet-based computer-enhanced courses, known as CoNNect, are offered through an affiliation with the B.C. Distance Education Schools Consortium.

During the 2004-2005 school year, 80 students enrolled in 33 different courses in grades 8 to 12. Two students also enrolled in courses offered through the Alberta Distance Learning Centre.

The Public Schools Branch also piloted the delivery of a Physics 11 course though video-conferencing. The pilot involved students from Watson Lake Secondary School and Robert Service School. The physics teacher was based at Watson Lake Secondary School. A second video-conferencing pilot involved 22 students from Whitehorse and Dawson City. At present, ten rural schools have access to fully-equipped video-conferencing suites.

In addition to YESNet and the video-conferencing suites mentioned above, Yukon public schools are the most 'connected' public schools in Canada (see *Connectivity and ICT integration in Canadian elementary and secondary schools: First results from the*

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*Information and Communications Technologies in Schools Survey, 2003-2004*⁵⁴). Yukon public schools' also have a low student/computer ratio (2.9:1).

Legislation

In support of this apparent e-learning trend in the Yukon, the *Education Act, Revised Statutes of the Yukon 2002*⁵⁵ allows for some flexibility in learning environments. For example, school is not tied to a "bricks and mortar" interpretation. It is defined as:

"a body of students organized as a unit for educational purposes under the jurisdiction of the Minister or a School Board;"

In addition, exceptions to attendance are permitted in the case of private, home or distance education situations (see excerpt from section 22 (2) on page 24 of the *Act* below).

- e. the student is enrolled and in regular attendance at a private school or a home education program in accordance with this Act; or
- f. the student is enrolled in distance education courses as approved by the deputy minister. S.Y. 1989-90, c.25, s.22.

Distance education is further referenced in section 30 on page 27 as follows:

Distance education

- 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.

However, the degree of flexibility in terms of the definition of school and excused attendance is not applicable, it would seem, to hours of instruction as section 46 on page 35 illustrates (see below):

- 46(1) The Minister or, if a School Board has been established, the School Board shall specify, on or before March 31, for each school operated by it
 - (a) the school opening date;
 - (b) the number and the days of school operation;
 - (c) the length of the school day; and
 - (d) the number of minutes of classroom instruction in a school day.

The Government of Yukon and the Council of Yukon First Nations (CYFN) announced the launch of the Education Reform Process, including a review of the *Education Act* in August, 2005. This review may result in changes that will address these inconsistencies.

Although the Yukon Department of Education's general policy can be found at http://www.education.gov.yk.ca/policy/policy_general.pdf, the section pertaining to learning resources (which may hint at use of online learning materials) is currently under review. For updates of various sections of the general policy and a description of the process the *Department* offers for suggestions, recommendations or requests for the development or revision of a policy, see <http://www.education.gov.yk.ca/policy/index.html>.

Summary

One of the primary objectives for developing public schools' infrastructure to the degree that Yukon has (e.g., low student to computer ratios, videoconferencing suites, connectivity, YESNet) was to expand learning opportunities through online distance education for Yukon

⁵⁴ See <http://www.statcan.ca/english/research/81-595-MIE/81-595-MIE2004017.pdf>

⁵⁵ See <http://www.gov.yk.ca/legislation/acts/education.pdf>

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students, particularly those in small rural communities. Yukon is continuing to expand its online course offerings.

Although generally enabling of e-learning, Yukon's Education Act presents some inconsistencies that may be limiting. Policy revisions are currently underway.

7.14 CMEC

Council of Ministers of Education, Canada (CMEC) Pan-Canadian Online Learning Portal

In April 2002, Ministers of Education approved the development of a pan-Canadian web-based portal that linked provincial/territorial websites, portals and learning content repositories, in keeping with Ministers' vision statement on online learning. The Pan-Canadian Online Learning Portal (<http://cmecportal.learning.gov.ab.ca>) was officially launched for CMEC Ministries' use in March 2004.

Current accomplishments include:

- ♦ The *Portal* is secure and accessible, in both French and English, to authorized users (currently Ministers, Deputy Ministers, Ministry staff, and CMEC Secretariat staff only) and links to provincial/territorial ministries of education web sites. The portal facilitates one-window access to relevant ministry policies, documents, research, and other resources on online learning.
- ♦ Provinces/territories have been linking jurisdictional documents and resources to the *Portal*. Additional information and resources are being linked to the *Portal* on a continuous basis.
- ♦ A directory and search mechanism has been developed to enable users to locate content from the database according to key categories and descriptors (e.g. type of resource, subject area, educational level, jurisdiction, intended user).
- ♦ The Ministers' Forum, a dedicated space for Ministers to post and exchange confidential messages and documents, has been developed. A similar space for Deputy Ministers will also be available. The Portal Steering Committee (PSC) has been piloting a Web Conferencing tool for the Ministers' Forum Conference before proceeding with its implementation.

Recent work has focused on revisions and additions to the current directory and content levels based on feedback from user evaluations, increasing the robustness of the *Portal* interface (e.g., online tutorials), increasing links to jurisdictional resources and programs at the post-secondary level, and populating the *Portal* with digital content developed through collaboration amongst jurisdictions.

A Request for Proposals will be issued to develop the capacity/functions (e.g., single touch point, personalization, content integration, smart search) required for the public launch of the *Portal* by fall 2007. A strategy to share digital objects among provinces and territories is also being explored.

7.15 Other Activities in Canada

In addition to the work that CMEC and each province and territory are doing towards e-learning, other Canadian-based organizations are also working towards goals associated with e-learning.

Commonwealth of Learning

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The Commonwealth of Learning is committed to assisting Commonwealth member governments to take full advantage of open, distance and technology-mediated learning strategies to provide increased and equitable access to education and training for all their citizens.

The Commonwealth of Learning (COL) is an intergovernmental organization created by Commonwealth Heads of Government to encourage the development of open learning and distance education, through the fostering and sharing of knowledge, resources and technologies.

Headquartered in Vancouver, Canada, COL is the world's only intergovernmental organization dedicated solely to promoting and delivering distance education and open learning, and is the only official Commonwealth agency located outside Britain.

The purpose of COL, as stated in its Memorandum of Understanding, is

“...to create and widen access to education and to improve its quality, utilising distance education techniques and associated communications technologies to meet the particular requirements of member countries. The agency's programs and activities aim to strengthen member countries' capacities to develop the human resources required for their economic and social advancement and are carried out in collaboration with Governments, relevant agencies, universities, colleges and other educational and training establishments among whom it also seeks to promote co-operative endeavours.”

Mandated to be in the vanguard of technological change in education and training, COL and its international network of partner organizations have helped the Commonwealth's 53 member nations and their citizens realize widespread access to quality, current education and training for over fifteen years. Fully operational since 1989, COL is financially supported by Commonwealth governments on a voluntary basis. It responds to Commonwealth needs through in-country and regional programs and initiatives, as well as fee-for-service consulting for international agencies and national governments.

See <http://www.col.org/about/whatis/index.htm> for more information about COL.

Canadian Council on Learning (See Note⁵⁶)

Funded through an agreement with Human Resources and Skills Development Canada in 2004, the Canadian Council on Learning (CCL) is a national, independent, non-profit corporation with a mandate to promote and support educational research by:

- ♦ informing Canadians of best practices in learning, CCL will help them to learn more effectively;
- ♦ working with a wide range of partners to promote a Canada-wide learning culture, CCL will help drive real progress in lifelong learning; and
- ♦ encouraging and facilitating the exchange of knowledge and information among those involved in delivering learning, CCL will create a national learning network to strengthen learning outcomes across Canada.

It may be important to keep abreast of the partnership between CCL and the **21st Century Learning Initiative** (<http://www.21learn.org/>). The purpose of this program is to engage Canadians in dialogue about the relationship between learning and the community. The Initiative, led by John Abbott, is a network of academics, researchers, policy makers and practitioners from numerous countries. Their goal is to facilitate the development of new approaches to learning that draw upon the most current insights into the human brain, the

⁵⁶ It is important to note that CMEC and Alberta Education DO NOT endorse the Canadian Council on Learning.

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functioning of human societies, and learning as a community-wide activity. The Initiative brings together research from cognitive science, neurology, evolutionary biology/psychology, cultural anthropology, as well as pedagogy, conventional psychology and systems theory to encourage people to rethink current education systems and institutions.

See <http://www.ccl-cca.ca/english/home/default.asp> for more information about CCL.

8. E-learning Profile in Selected Countries World Wide (AU, EU, OECD, UK, and US)

Comprehensive policy documents that provide blueprints or establish programs geared to a knowledge-based economy can be found for many countries, regions and agencies internationally. For example:

- ♦ **Australia** put forward *A Strategic Framework for the Information Economy (2004-2006)*;
- ♦ the **European Union** set forth the *E-Learning Action Plan, Brussels 2001*;
- ♦ the **OECD** published *Cities and Regions in the New Learning Economy 2001*;
- ♦ the **United Kingdom** presented *Connecting the Learning Society 1997*, and *Transforming the Way We Learn 2001*; and
- ♦ the **United States** put forward *Visions 2020: Transforming Education and Training through Advanced Technologies, CEO Forum 2001*; *Any Time, Any Place, Any Path, Any Pace: Taking the Lead on e-learning Policy, National Association of State Boards of Education: Alexandria, VA 2001*; *Smart Cities New York, Electronic Education for a New Millennium, New York City Board 2000*.

Each of these documents suggests a readiness and commitment towards e-learning in these regions.

This section of the *Profile* takes a closer look at the current e-learning activities in Australia (AU), the European Union (EU), the Organization for Economic Cooperation and Development (OECD), and the United States (US) and relates them to the policies these countries, organizations and regions set forth earlier in this decade.

8.1 Australia

The Australian Government has a vision to build a leading role for Australia in the global information economy, and to maximize the benefits to all Australians from innovation, production and use of information and communication technologies (ICT). The Government's strategy to achieve this vision for ICT is articulated in *A Strategic Framework for the Information Economy*⁵⁷. This vision extends to all government departments including the Department of Education, Science and Technology, and hence provides a fertile environment for e-learning in Australia.

Department of Education, Science and Training

In April 1999, State, Territory and Australian Government Ministers of Education made a commitment to improving Australian schooling within a framework of national collaboration. Their commitment is captured in *The Adelaide Declaration on National Goals for Schooling in the Twenty-first Century - Preamble and Goals*⁵⁸.

Subsequent to establishing these shared goals, The Department of Education, Science and Technology (DEST) initiated national consultations as part of a review called *Australia's Future Using Education Technology*⁵⁹. The review will:

- ♦ take stock of the current uses and providers of Information and Communications Technology (ICT) in education and training in Australia;

⁵⁷ See http://www.dcita.gov.au/data/assets/pdf_file/20457/New_SFIE_July_2004_final.pdf

⁵⁸ See http://www.dest.gov.au/sectors/school_education/policy_initiatives_reviews/national_goals_for_schooling_in_the_twenty_first_century.htm for more information.

⁵⁹ See <http://www.dest.gov.au/NR/rdonlyres/06F240F5-BC79-42CC-9101-3B9D05C1B316/4838/TermsOfReference.rtf>

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- ♦ identify emerging uses, providers and pedagogical approaches and infrastructure and expertise required for effective use of ICT giving particular attention to:
 - the education and training needs of Indigenous people;
 - access for remote and regional Australians;
 - positioning Australians to access international markets in education and training including through private/public partnerships and other consortia; and
- ♦ draw out policy issues that will require attention for Australia to obtain maximum benefits.

Online learning was identified as a key priority for DEST and has been described within the *Framework for Open Learning Program*⁶⁰. This program aims to promote awareness, and maximize the benefits of information and communications technology to the education and training community. It supports two Australian Government initiatives: The Le@rning Federation and EdNA Online.

The Le@rning Federation

The Le@rning Federation (TLF) (<http://www.thelearningfederation.edu.au/tlf2/default.asp>) is an initiative of the state, territory and federal governments of Australia and New Zealand. TLF produces online curriculum content to encourage student learning and support teachers in Australian and New Zealand schools. It addresses one of the three key areas (i.e., content) identified in *Learning for the knowledge society: An education and training action plan for the information economy (2000)*⁶¹, the document in which Ministers outlined the requirements for schools to contribute to and benefit from Australia's information economy agenda. The other key areas, agreed by all education sectors, are infrastructure, professional development, and policy and regulation. More information about TLF's objectives, governance, funding, roles and responsibilities, and outcomes are described below.

TLF **objectives** are to produce online curriculum materials for Australian and New Zealand schools that:

- ♦ are developed within a framework to support distributed access;
- ♦ represent the best education available or conceivable in the twenty-first century;
- ♦ will engage teachers and students in the construction of learning and in creative and critical thinking;
- ♦ support the growing innovations, enterprise and knowledge economy priorities of the governments of Australia, the Australian states and territories, and New Zealand; and
- ♦ encourage a marketplace for high-quality public and private online curriculum materials.

In terms of **governance**, TLF reports to the governments that own and fund it through the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA). In 2001, MCEETYA delegated responsibility for TLF to Australian Education Systems Officials Committee (AESOC). TLF is monitored and governed through a Steering Group appointed by AESOC and consisting of five of that committee's members. The Steering Group is supported by a small secretariat.

TLF **project management** is a joint venture between Curriculum Corporation (<http://www.curriculum.edu.au/>) and education.au Limited (<http://www.educationau.edu.au/>). Both of these companies are owned by all education ministers in the governments of

⁶⁰ See

http://www.dest.gov.au/sectors/school_education/programs_funding/program_categories/online_learning/framework_f_or_open_learning_program.htm

⁶¹ See the *Learning in an Online World* section at

<http://www.dest.gov.au/archive/schools/publications/2000/learning.pdf>

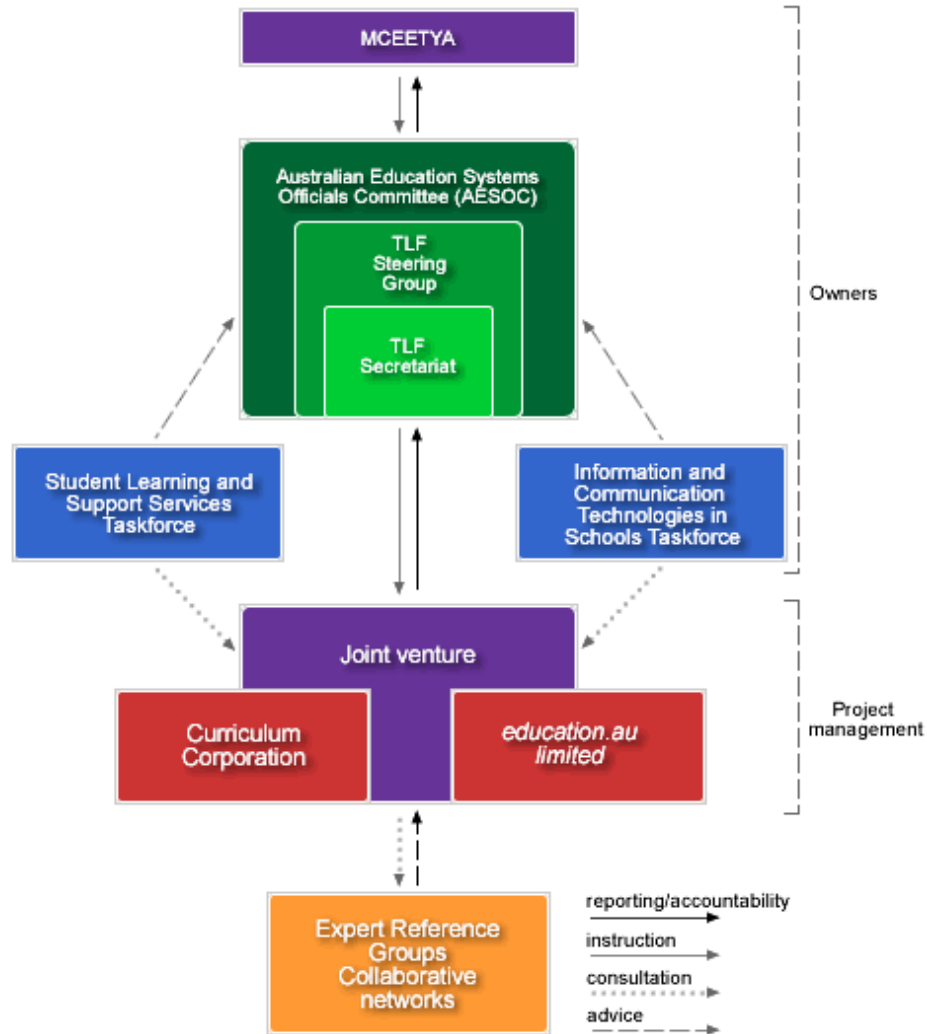
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Australia, the Australian states and territories, and New Zealand. The role of education.au and Curriculum Corporation are described in more detail below.

See Diagram 2: Governance Structure for the Le@rning Federation on the following page.

Diagram 2: Governance Structure for The Le@rning Federation



TLF is **funded** for the period 2001-2006 by the governments of Australia, the Australian states and territories, and New Zealand. Approximately half of TLF's funding is provided by the Australian Government as part of *Backing Australia's Ability: Innovation Action Plan*, with the state, territory and New Zealand governments providing the remainder.

TLF's **role** is to create online curriculum materials and the necessary infrastructure to ensure that teachers and students in Australia and New Zealand can use these materials to widen and enhance their learning experiences in the classroom.

TLF's **responsibilities** include:

- ♦ tendering and project-managing the online curriculum materials projects;
- ♦ developing technical standards for the materials;

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- ♦ establishing pedagogical standards for the materials;
- ♦ creating infrastructure to assist in developing the materials, and for distributing them;
- ♦ conducting collaborative communication processes; and
- ♦ harvesting data that evaluates the usage and impact of TLF online curriculum content.

The education sectors of the Australian states and territories and of New Zealand are responsible for the roll-out of the online curriculum materials into schools.

TLF has achieved the following **outcomes**:

1. Established critical industry and educational standards, particularly for interoperability, which means that the online curriculum materials can be used on a range of computers and operating systems;
2. Developed specifications designed to optimize accessibility and technical performance, and ensure educational soundness and appropriate rights management;
3. Produced online content in six curriculum priority areas: Science; Mathematics and numeracy; Literacy for students at risk; Studies of Australia; Languages other than English (Chinese, Japanese and Indonesian); and Innovation, enterprise and creativity;
4. Developed software systems (the Exchange and BELTS, the basic e-learning tool set) crucial to schools being able to receive and use online content;
5. Become a catalyst for the development of online infrastructure for schools;
6. Worked with cultural institutions such as the National Film and Sound Archive and Te Papa Tongarewa Museum of New Zealand to capture cultural content in learning objects and digital resources; and
7. Conducted pilot studies on the use of TLF online curriculum content in schools in all Australian states and territories and in New Zealand, and is currently conducting trials in the United Kingdom.

For more information consult *The Readiness is All: Implementing the Le@rning Federation: A Discussion Paper prepared by the Le@rning Federation Steering Group*⁶².

An important TLF initiative, the **Schools Online Curriculum Content Initiative (SOCCI)** (<http://www.thelearningfederation.edu.au/tlf2/showMe.asp?nodeID=72>), contributes to the large-scale collaborative development of a national pool of online curriculum resources and supporting mechanisms for sharing the resources across school systems. It is believed that this initiative will advance the development of a national market for quality-assured online resources.

Education Network Australia

Education Network Australia (EdNA) is a collaborative initiative of the Australian Government, and state and territory government and non-government authorities, involving all sectors of education and training. EdNA's public face is EdNA Online (<http://www.edna.edu.au/edna/page1.html>). It offers a search engine, a range of categories through which users can browse to find resources, and access to information about schools, universities, vocational education and training, and adult and community education organizations.

⁶² See

http://www.thelearningfederation.edu.au/tlf2/sitefiles/assets/docs/brochures_reports/feasibility/readiness_is_all.pdf

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education.au

Key to TLF's success is education.au, a national ICT agency for education and training, owned by the Commonwealth and State and Territory education and training Ministers. The Agency was established to enact agreements reached by these Ministers in the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA).

education.au collaborates with numerous stakeholders in education and training communities working across the early childhood, schooling, vocational education and training, adult and community education, and university sectors. The agency develops and manages online services that are of benefit to the education and training sector and are national in scope. This is done through the:

- ♦ use of collaborative and consultative processes with the aim of building knowledge networks and a collective approach to meeting the challenges and opportunities presented by the Internet and information economy; and
- ♦ formation of strategic national and international alliances with a broad range of government sponsored organizations.

Curriculum Corporation

Curriculum Corporation (CC) is an independent education support organization owned by all Australian education ministers and established to assist education systems in improving student learning outcomes. This work is done in collaboration with education systems, responding to agreed national directions.

CC provides and publishes print and digital curriculum products, provides educational project management services, delivers assessment and testing services to education systems, provides a model for online delivery and nurtures strategic partnerships. CC offers this range of services to national and international clients, including government, commercial, and community service and education organizations.

Summary

Australia has taken a nationally-led collaborative (includes Commonwealth, State and Territory ministries of education) and largely-outsourced approach to e-learning. Their strategic direction, commitment of resources, and model of collaboration, as well as the strategies they've employed, and the achievements they've realized have put them among the leading nations of the world in e-learning.

8.2 European Union

Like Australia, the European Union has taken significant steps toward advancing e-learning among its member states.

The *e-Learning Action Plan: Designing tomorrow's education (2001-2004)*, Brussels 28.3.2001⁶³ was adopted by the European Commission on May 24, 2000. It sets out the principles, objectives and lines of action of e-learning (defined as the use of new multimedia technologies and the Internet to improve the quality of learning by facilitating access to resources and services as well as remote exchanges and collaboration).

The *e-Learning Action Plan* is part of the comprehensive *eEurope Action Plan 2005*⁶⁴, the aim of which is to allow Europe to exploit its strengths and overcome the barriers holding

⁶³ See http://europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0172en01.pdf

⁶⁴ See http://europa.eu.int/information_society/eeurope/2002/news_library/documents/eeurope2005/execsum_en.pdf for an executive summary of the *eEurope Action Plan*.

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back the uptake of digital technologies. For more information about *eEurope 2005*, see http://europa.eu.int/comm/information_society/europe/index_en.htm.

The *e-Learning Action Plan* also falls in with the *Report on the concrete future objectives of education systems, Brussels, 31.01.2001*⁶⁵ by adopting information and communication technology development as one of its objectives. This report stated that the effectiveness of education systems depends on the effectiveness of the approaches to teaching and learning. It further stated, that in order to be effective, the introduction of information and communication technologies will have to be accompanied by a far-reaching reorganization of learning structures.

The **purpose** of the *e-Learning Action Plan* was to present ways and means of implementing the *e-Learning Initiative*. The intention was to involve education and training players, as well as the relevant social, industrial and economic players, in order to make lifelong learning the driving force behind a cohesive and inclusive society, within a competitive economy. It is believed that the *e-Learning Initiative* will help promote employability and adaptability objectives, rectify the shortage of skills associated with new technologies, and improve social inclusion.

The *Plan* also explained how e-learning fits into the context of *eEurope*, identified areas in which it will contribute, and mentioned the programs and instruments that will enable EU Member States and other European countries to participate.

The *Plan* stated that new budgetary resources will not be allocated, instead a more coordinated and coherent use of existing budgets will take place. In this light, the European Commission (http://europa.eu.int/comm/index_en.htm) examined community-level resources and designated actions to provide back-up and encouragement for initiatives at regional and Member State levels.

The *Plan* also set out key measures for each of its lines of action (infrastructure, training, services, content, and cooperation) and provided a practical guide to the services and instruments involved.

The e-Learning Program

(http://europa.eu.int/comm/education/programs/elearning/index_en.html) was part of the *Plan*. It is a program for the effective integration of Information and Communication Technologies (ICT) in education and training systems in Europe from 2004 to 2006. The *e-Learning Program* web site provides links to related documents (e.g., action plans, working papers, proposals), studies (e.g., a study of the e-learning suppliers' market in Europe), calls for proposals as well as the results (e.g., virtual campuses, e-twinning of schools), compendia of e-learning pilot projects, the e-Twinning portal (i.e., school partnerships in Europe), upcoming e-learning events, and to the [elearningeuropa.info](http://www.elearningeuropa.info) portal (<http://www.elearningeuropa.info/>). The appendix to the *e-Learning Action Plan* entitled, *Annex: Guide to Related Programs and Instruments*⁶⁶ is of particular interest as it describes several of the projects underway.

Minerva Action, one of the projects underway, seeks to promote European cooperation in the field of Information and Communication Technology (ICT) and Open and Distance Learning (ODL) in education (see http://europa.eu.int/comm/education/programs/socrates/minerva/index_en.html for more information about various Minerva projects as well as links to **European SchoolNet** (<http://www.europeanschoolnet.org/ww/en/pub/eun/index.htm>), the **European Distance and**

⁶⁵ See http://europa.eu.int/comm/education/policies/2010/doc/concrete-future-objectives_en.pdf

⁶⁶ See http://europa.eu.int/comm/education/programs/elearning/annex_en.pdf

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e-Learning Network (EDEN) (<http://www.eden-online.org/eden.php>), and the International Council for Distance Education (<http://www.icde.org/>) to name a few).

A new Open Classroom Working Group was recently approved and formalized by The EDEN Executive Committee. This Working Group has overall responsibility for the thematic preparation of the Open Classroom Conferences and for the **Open Classroom Initiative** (an initiative that focuses on distance education and new technologies in school level education and training).

The **Open Classroom Working Group** was established in 1998, with participation by European experts, researchers and academics. The assignment of the Working Group includes establishing the necessary "mechanisms" to link national and regional events, conferences, networks, and initiatives such as the European SchoolNet (EUN), the European Experts Network for Educational Technology (EENet) and the Multimedia Educational Innovation Network (MENON). A discussion paper, issued by the Working Group and entitled *Open Learning for the School Age in the Information Society*⁶⁷, summarizes the experience and creates the basis of further development.

Summary

As the previous overview illustrates, the member states of the European Union are taking significant actions toward e-learning through the *e-Learning Program*, which was derived from the eEurope and e-learning action plans. Given the political, linguistic and cultural diversity of the member states, this is not a trivial undertaking and they are making progress.

8.3 Organization for Economic Cooperation and Development (OECD)

The OECD describes the e-learning environment in its member countries with respect to policy challenges in a recent publication entitled, *e-Learning in Tertiary Education: Where Do We Stand? (OECD 2005)*⁶⁸.

Although the focus for this publication was tertiary education, the points made could easily apply to e-learning in the K-12 sector as well. The authors claim that in all OECD countries, governments play a significant role in the strategic direction and funding of e-learning as well as influencing behaviour by means of strategic funding/policy (OECD, 2005). The policy challenge posed by the authors is, "What can governments and related agencies do to create an enabling environment for e-learning development and to reap all its benefits?"

The authors' responses to this challenge are as follows:

1. Although investment in the basic infrastructure is still required in emerging economies, governments in the developed world, where investment in infrastructure has been more extensive, "now need to develop and change the "softer" social, organizational and legal contexts in order to foster the further development of e-learning. This is where governmental policies should now focus."
2. Policy frameworks are needed to help shift e-learning to the mainstream and maximize its impact in the classroom.
3. Practical and experimental knowledge of e-learning including successful practices and interesting experiences need to be shared to stimulate innovation, avoid wasteful duplication of efforts, and scale up successful experiments.

⁶⁷ See http://www.eden-online.org/papers/oclr_discussion_paper.pdf

⁶⁸ See excerpt at <http://www.oecd.org/dataoecd/54/62/34900350.pdf>.

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4. Government funding is still required for e-learning in its immature stage, however, a clearer understanding of the costs and benefits of e-learning are required. “For example, while e-learning could incur both cost reduction and enhanced quality, the two underlying agendas might not be similar.”
5. Appropriate staff development should be encouraged.
6. Research and development on learning objects and other promising pedagogic innovations should be supported.
7. The issues surrounding intellectual property in e-learning should be explored.
8. A dialogue between various stakeholders should be promoted to keep costs at a reasonable level.
9. Governments should avoid micro-managing change.
10. Governments and stakeholders alike should adopt a suitable timeframe for development. “Patience is a key condition to any capacity building policy.”

8.4 United Kingdom

As a member of the European Union, the United Kingdom (UK) actively participates in activities related to the *e-Learning Action Plan* referred to in Section 8.2 of this *Profile*.

Long before this action plan was in place, the UK expressed its strong commitment to improving access to learning. The Department for Education and Skills (DfES) (<http://www.dfes.gov.uk/>) released a strategy document in 2002 entitled, *Education and Skills: Delivering Results, A Strategy to 2006*⁶⁹, which stated:

“We will work jointly with other departments towards delivering Government priorities, in particular: ... increasing access to education....”

Access to learning and services through information and communications technology is vital and must be available in new and creative ways for learners of all ages. We must prevent a digital divide where those who cannot use or afford new technology are disadvantaged.”

The DfES was already actively pursuing some of the objectives of this strategy. DfES has sponsored consultations and funded initiatives involving ICT and e-learning since 1998. These are described below.

1. The **National Grid for Learning** (<http://www.ngfl.gov.uk/>) was launched in November 1998. It was seen as UK’s gateway to quality assured educational resources on the Internet. The portal continues, as part of the Government’s National Grid for Learning strategy, to help learners and educators benefit from information and communications technology (ICT). It is funded and managed by the **British Educational Communications and Technology Agency** (Becta) (<http://www.becta.org.uk/>), the Government’s key partner in the strategic development and delivery of its information and communications technology and e-learning strategy for the schools and the learning and skills sectors. It supports all four UK education departments.
2. The **Curriculum Online** program (<http://www.curriculumonline.gov.uk>) was launched a few years later in December 2001 to further support the NGfL. It was designed to support teaching and learning by making curriculum-correlated multimedia resources accessible to teachers and students. Some resources are free, while others must be purchased using electronic learning credits (central-government targeted funding for the purchase of

⁶⁹ See <http://www.dfes.gov.uk/aboutus/strategy/pdf/DfES-Strategic%20Framework.pdf>

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- multimedia resources in the amount of £330 million over 4 years from 2002 to 2006). For information on the consultation leading up to this program see http://www.dfes.gov.uk/consultations/downloadableDocs/68_1.pdf.
3. January 2002 saw the launch of another NGfL program called the **ICT in Schools Program**. More information about this teacher professional development support program is available on the Teachernet website (<http://www.teachernet.gov.uk/>).
 4. The DfES initiated a consultation on e-learning in July 2003 by releasing *Towards a Unified e-Learning Strategy: A Consultation Document*⁷⁰. This consultation document described e-learning, explained why e-learning was important, and why a unified e-learning strategy was needed. DfES also proposed a vision and strategy for e-learning in the consultation document. Over 5000 mostly favourable responses were received and an analysis of the responses was published (see *Progress Towards a Unified e-Learning Strategy, April 2004*⁷¹).
 5. In support of these efforts by the DfES, the Department of Culture, Media and Sport continues to review the products and services provided by the BBC to better serve the public. The **BBC Schools** and **BBC Learning** sites have become popular learning resource destination sites for many learners and educators. Curriculum Online and the NGfL web sites reference many BBC resources. BBC Learning supports e-learning in England, Scotland, Northern Ireland and Wales. See the BBC Learning web site at <http://www.bbc.co.uk/learning/> for information about online learning, as well as the kinds of support and advice offered. See BBC Schools at <http://www.bbc.co.uk/schools/> for information geared to students, parents and teachers.
 6. The Training Foundation works with many Government departments to provide e-learning skills to the public sector. Their **Ready for Work** web site (<http://www.readyforwork.org>) is a free online learning program that has been designed to help young people successfully transition from education into employment.
 7. Ireland has developed some strategies as well. Of particular note is *Preparing Students for Learning in an Online World*⁷². Lorenzi (2004) outlines the way in which the National Distance Education Centre, Ireland has developed its technology strategy, from the initial research on student readiness to learn using technology to more recent studies which have identified the need for a program specifically designed to prepare students for learning in the online world. The key design considerations for these preparatory courses, where e-learning skills are learned in disciplinary contexts, are also discussed.
 8. Northern Ireland's emPowering strategy is also worth noting (<http://www.empoweringschools.com>). To achieve the vision that "all young people should be learning with, through and about the use of digital and online technologies", a strategy that seeks to build human capacity, bring about systemic changes to embed ICT into practice, evaluate educational benefits of quality ICT integration, and make progress towards a unified e-learning strategy has been articulated.

The efforts to support e-learning in the UK are ongoing. On 15 March 2005, the DfES published their e-Strategy, entitled *Harnessing Technology: Transforming learning and children's services*⁷³. This strategy describes the use of digital and interactive technologies to

⁷⁰ See <http://www.dfes.gov.uk/consultations/downloadableDocs/towards%20a%20unified%20e-learning%20strategy.pdf>

⁷¹ See <http://www.dfes.gov.uk/consultations/downloadableDocs/Analysis%20Document.pdf>

⁷² See http://www.eurodl.org/materials/contrib/2004/Lorenzi_MacKeogh_Fox.htm

⁷³ See summary at <http://www.dfes.gov.uk/publications/e-strategy/docs/e-strategysummary.pdf>

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achieve a more personalized approach within all areas of education and children's services. It is five year plan that sets out to achieve four overarching objectives:

1. Transforming teaching, learning and child development, enabling children and learners of all ages to meet their highest expectations;
2. Connecting with hard-to-reach groups in new ways;
3. Opening up education to partnerships with other organizations; and
4. Moving to a new level of efficiency and effectiveness in delivery.

It is designed to harness technology to meet the needs of children, learners, parents, teachers, caregivers, employers and all stakeholders.

The e-Strategy has the following six priorities:

1. An integrated online information service for all citizens;
2. Integrated online personal support for children and learners;
3. A collaborative approach to transforming teaching and learning;
4. A good quality training and support package for practitioners;
5. A leadership and development package for organizational capability in ICT; and
6. A common digital infrastructure to support transformation and reform.

Summary

Along with Australia, the United Kingdom is a recognized leader in the area of e-learning. The Department for Education and Skills continues to take a leadership role and has committed significant resources (well over £2 billion since 2002) towards e-learning. The DfES collaborates with other central government departments, other education ministries, international standards bodies, and academic organizations and associations as they strive to achieve improved access for all learners.

8.5 United States

The United States is also addressing e-learning. The National Association of State Boards of Education (NASBE) stated in its 2001 report entitled, *Any Time, Any Place, Any Path, Any Pace: Taking the Lead on e-Learning Policy*⁷⁴ that evidence to date convincingly demonstrates that, when used appropriately, e-learning can improve how students learn, can improve what students learn, and can deliver high-quality learning opportunities to all children. The NASBE Study Group concluded that

“e-learning will improve American education in valuable ways and should be universally implemented as soon as possible”

The report also encourages state policymakers to

“seize the opportunity to take the lead and move decisively to assure that e-learning spreads rapidly and equitably, is used well, and strengthens the public education system”

The primary goal of the report was to provide a context for education policy leaders to ask the right policy questions and take the lead on developing sound e-learning policies. Three major policy opportunities were identified:

1. re-engineering the system;
2. assuring equity; and
3. delivering quality instruction to learners.

⁷⁴ See http://www.nasbe.org/Organization_Information/e_learning.pdf

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Note: The NASBE also released a brief overview of the previous study (see *The Power of e-Learning: Transforming what and how students learn (Summer 2002)*⁷⁵).

Subsequent to this report, *A Retrospective on Twenty Years of Education Technology Policy*, October 2003⁷⁶ was commissioned to support the development of the National Education Technology Plan (<http://www.NationalEdTechPlan.org>) Prepared by the American Institutes for Research under contract to the U.S. Department of Education, this paper analyzed twenty years of policy reports related to integrating technology into K-12 education in the United States. The authors concluded that future policy needs to be informed by clear evidence and needs to be crafted to effectively leverage the interaction of all issues including:

- ♦ improving access, connectivity and infrastructure;
- ♦ creating high quality content and software;
- ♦ providing sustained quality professional development;
- ♦ defining and promoting the roles of multiple stakeholders;
- ♦ increasing and diversifying research, evaluation and assessment;
- ♦ reviewing, revising and updating regulations; and
- ♦ increasing funding.

The authors suggested that the following questions need to be answered by the policy, practices and research communities as they begin to address the issues:

1. How can policy be shaped so that technology initiatives can more effectively accommodate and address the issues most relevant to teachers and build on those interests to improve practice over time?
2. How can education technology policy best be linked to pressing public concerns regarding education, such as accountability and equity?
3. How can we build on past successes, where technology has had a significant impact on a concrete challenge in schooling?

As required by the *No Child Left Behind Act of 2001*, the United States Department of Education (<http://www.ed.gov/index.jhtml>) released *Toward a New Golden Age in American Education: How the Internet, the Law and Today's Students are Revolutionizing Expectation*⁷⁷ in January 2005. This document articulates the vision and recommendations for the National Education Technology Plan. It also highlights success stories from several states including Alaska, California, Florida, Missouri, Virginia, New Mexico, Idaho, West Virginia, Arkansas and Pennsylvania. The success stories highlighted included:

- ♦ student information management systems;
- ♦ total information management;
- ♦ laptop computing;
- ♦ virtual schools;
- ♦ online professional development programs;
- ♦ statewide online assessments; and
- ♦ various research studies (e.g., assessment using hand-held devices, access to computers in the home).

The most publicized virtual school in the U.S. is likely the **Florida Virtual School (FLVS)** (<http://www.flvs.net/>). FLVS provides online education courses to over 21,000 K-12 students throughout the U.S. and has become a nationally recognized e-learning model. FLVS started as a pilot project in 1997. In 2000, the Florida Legislature established FLVS as an independent educational entity with an appointed governing board. Its courses are accredited

⁷⁵ See http://www.nasbe.org/Standard/10_Summer2002/bogden2.pdf

⁷⁶ See <http://www.nationaledtechplan.org/participate/20years.pdf>

⁷⁷ See http://www.nationaledtechplan.org/theplan/NETP_Final.pdf

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by two agencies (i.e., The Southern Association of Colleges and Schools (SACS) and The Commission on International and Trans-Regional Accreditation). For more information about FLVS, see http://www.flvs.net/educators/fact_sheet.php.

The State Educational Technology Directors Association (<http://www.setda.org/>) recently developed the *National Leadership Institute's Toolkit 2005: e-Learning Leadership and Policies*⁷⁸.

The objectives of the *Toolkit* are:

- ♦ To identify the range of possible e-learning models and current policies in place in different states as well as the implications associated with these different options and models; and
- ♦ To provide information and strategies to assist state leaders in effectively choosing, creating and/or implementing e-learning policies and programs.

The key questions to be addressed using the *Toolkit* are:

- ♦ What are the key characteristics of different e-learning models and the policy implications associated with these different models?
- ♦ What are the key criteria or guidelines for evaluating whether to adopt an e-learning program and for selecting which specific e-learning option to put in place?
- ♦ What are some examples of legislation and policies in place to guide e-learning efforts across and within different states and what implications does each of these kinds of policies have for implementing e-learning?
- ♦ What are the strategies for overcoming the challenges associated with implementing e-learning opportunities?

Although not focused on e-learning, the **Partnership for 21st Century Skills** (<http://www.21stcenturyskills.org/index.php>) is an important reference in terms of describing the 21st century context within which successful e-learning communities will operate. This *Partnership* emerged as an advocacy organization focused on infusing 21st century skills into education. The organization brings together the business community, education leaders, and policymakers to define a vision for 21st century education to ensure every child's success as citizens and workers in the 21st century. The Partnership encourages schools, districts and states to advocate for the infusion of 21st century skills into education and provides tools and resources to help facilitate and drive change.

The Partnership's work is supported by the U.S. Department of Education. Member organizations include: Adobe Systems Incorporated, Agilent Technologies Foundation, American Association of School Librarians, American Federation of Teachers, Apple, Bell South Foundation, Cable in the Classroom, Cisco Systems, Inc., Corporation for Public Broadcasting, Dell Inc., ETS, Ford Motor Company Fund, Intel Corporation, JA Worldwide, LeapFrog SchoolHouse, McGraw-Hill Education, Microsoft Corporation, National Education Association, Oracle Corporation, Pearson Education, SAP, SAS, Texas Instruments Incorporated, Thomson Gale, Time Warner, Inc. and Verizon.

Note: The Partnership for 21st Century Skills produced an extensive bibliography of resources entitled *Route 21 Interactive Guide to 21st Century Learning and A Policymakers' Guide to 21st Century Skills Bibliography*⁷⁹ of use to those considering e-learning implementation.

Also of interest to this *Profile* is the **One Laptop per Child** initiative (<http://laptop.media.mit.edu/>) being led by the Massachusetts Institute of Technology. One Laptop per Child (OLPC) is a non-profit association dedicated to research to develop a \$100

⁷⁸ See http://www.setda.org/Toolkit2004/elearning_entire_summary_tools.pdf

⁷⁹ See http://www.21stcenturyskills.org/images/stories/route21_policypaper_bibliography.pdf

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laptop—a technology that could revolutionize how we educate the world's children. This initiative was first announced by Nicholas Negroponte, chairman of OLPC, at the World Economic Forum at Davos, Switzerland in January 2005.

Summary

The United States, although self-admittedly playing catch-up to other nations in the area of e-learning, is now making progress. An important retrospective of technology policies was undertaken in 2003. The National Education Technology Plan was released in 2005 and provides a vision and recommendations for e-learning. State Boards of Education appear to be collaborating on ways they might achieve the goals of the National Education Technology Plan with respect to e-learning and have developed a toolkit to support the process. Several states are engaged in activities ranging from online assessments to virtual schools.

9.

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