Overview of Provincial/Territorial Involvement in On-line Learning

Provinces and territories have been developing comprehensive policy frameworks and/or initiatives for on-line learning within their jurisdictions, and working with their institutions to develop and promote on-line programs. Canadian public institutions alone now offer more than 5,000 courses on-line, representing a "critical mass" of expertise, developed resources, and networking, which contribute to positioning Canada as a leader in on-line learning. The February 2001 joint release of the report of the Advisory Committee for Online Learning by the Council of Ministers of Education, Canada and Industry Canada also raised the profile of this ongoing Canadian work.

A. Provincial Policy Statements and Departmental/Ministerial Initiatives for On-Line Learning

On-line learning programs and technology mediated learning is a dynamic and rapidly evolving field. Policies and initiatives are in constant development. As of June 2001, some examples of policy statements or departmental initiatives are outlined below:

British Columbia

The Government of British Columbia supports the development and use of technology-mediated curricula. For example:

- *Charting A New Course*, the strategic plan for the university college, college, institute and agency system, recommends implementing system-wide approaches, including educational technology, to promote responsive, flexible, and high-quality program delivery.
- Charting A New Course identified the Centre for Curriculum, Transfer and Technology (C2T2), a provincial government agency, to play a key role in coordinating information on the use of educational technology in the post-secondary system. C2T2 has a small core of staff dedicated to promoting and facilitating the development of educational technology in the university college, college, university college and institute system.
- In November 1998, the Ministry of Advanced Education, Training and Technology (MAETT) convened the Educational Technology Working Group to develop an educational technology policy framework. The Working Group was comprised of public post-secondary administrators, faculty, unions and students, and operated under the auspices of the Provincial Standing Committee on *Charting a New Course*.
- The *Educational Technology Policy Framework*, submitted to MAETT by the Educational Technology Working Group in 2000-01, provides recommendations to address current and long-term needs. To date, government has responded to this submission with funding allocations in support of on-line education and support for "the e-merge initiative" (see below for a list of provincial initiatives).
- In addition, the Provincial Learning Network (PLNet), a six-year, \$123 million joint initiative of the Ministry of Education and MAETT, provides moderate- to high-speed connectivity to all communities with a school or a college site throughout the province. Over 2000 sites are now connected.

The Provincially Initiated Curriculum (PIC) Fund is focused on provincial priorities, including launching province-wide programs on-line. More than 53 per cent of the nearly \$355,000 available in PIC funding for 2000-01 was targeted to province-wide on-line delivery projects. Funded projects for 2000-01 with an educational technology focus include:

- exploring the development of standardized Adult Basic Education curriculum in WebCT format
- phase II of the 'e-merge' Applied Business Technology pilot
- biology for nursing Web-based course development
- distance delivery of upper-level courses in Bachelor of Tourism Management programs

Over 20 per cent of the nearly \$250,000 Locally Initiated Curriculum (LIC) budget in 2000-01 was allocated to projects focused on educational technology, including:

- an Internet-based distance education course in environmental geology
- Internet-based research skills training modules
- Web-based modules on maternal/newborn nursing
- industrial electronics technician Web-based bridging program
- general science for elementary teachers distance delivery.

As well, an educational technology-related example supported by Aboriginal Special Project funding is Computer Systems Entry for Aboriginal People, which will develop an entry-level program to enhance Aboriginal students' academic and technical skills for entry into the Computer Systems Technology Diploma Program at the British Columbia Institute of Technology.

In response to the *Educational Technology Policy Framework*, the provincial government made several funding allocations to assist institutions in developing and upgrading technology equipment infrastructure to support on-line education systems and services in 2000-01. These include:

- approximately \$20 million (one-time funding) in 2000-01 to the university college, college and institute system for the purchase of information technology equipment and systems upgrading
- over \$5 million toward capital projects related to electronic technology
- a total of 48 per cent of non-laboratory classrooms in 2000-01 have network connections compared to 39 per cent in 1999-2000.

Alberta

- The Alberta Online Consortium (AOC) is a member-driven organization dedicated to supporting on-line learning among all students in Alberta. With broad-based membership from 57 Alberta school districts and 13 postsecondary institutions, the Consortium is actively involved in coordinating content development and professional development activities across Alberta. (www.albertaonline.ab.ca)
- Campus Alberta is an initiative including but not limited to on-line learning, described as building "a campus that stretches right across the province." Policies to support Campus Alberta are in development in areas such as system coordination, course transferability, and common registration procedures.
- The Online Curriculum Repository (OCR) will be a repository of curriculum-specific learning objects (or digital learning content) accessible to all Albertans, at any time, anywhere. This OCR project will include linked learning portals and digital databases which, while initially focused on K-12, will in the longer term provide digital resources for postsecondary education also.
- While the Alberta Distance Learning Centre initially provided its courses on print, many of
 its courses are now also being provided on-line. Instruction can be provided using both
 synchronous (i.e., real-time) and asynchronous tools through the Virtual School.
 (http://www.adlc.ab.ca/home/)
- Alberta Innovation and Science will allocate \$50 million for the first-year rollout of Alberta SuperNet, which will provide affordable, high-speed network connectivity and Internet access to all universities, schools, libraries, hospitals, and provincial government buildings throughout the province. The total investment in Alberta SuperNet over three years is \$200 million.
- \$10 million will again be allocated to attract and recruit world-class researchers in selected areas of information and communications technology (ICT), in partnership with Alberta universities and iCORE.

Saskatchewan

Saskatchewan Post-Secondary Education and Skills Training and provincial institutions have developed a comprehensive policy statement and five-year *Action Plan For Technology Enhanced Learning* to guide the expansion of on-line learning and the use of related technologies throughout the postsecondary sector. Technology-enhanced learning is a key provincial strategy to build a flexible learning system in tune with the demands of the new economy for high-quality postsecondary opportunities available in formats, times, and locations that fit learners' needs.

Campus Saskatchewan, a consortium involving the province's universities, technical institute, regional colleges, and other partners, is being implemented in 2001-02. Through Campus Saskatchewan, institutions will provide over the next five years:

- a coordinated array of on-line courses and programs
- enhanced credit transfer arrangements so that students can earn all or part of a credential through alternative means and by taking courses from different institutions

- a network of services in rural, northern, and urban areas to provide the support and connectivity required by many learners to benefit from new on-line opportunities
- a streamlined admissions process with linkages to on-line registration and application for student financial assistance
- a Web site for students, faculty, counselors, and the general public to have one-stop access to Campus Saskatchewan information and services

The province is contributing \$4.15 million in 2001-02 to support Campus Saskatchewan and institutional priorities for expanding on-line learning. Funding is directed to the following priorities:

- on-line content development for courses and programs that are responsive to provincial social and economic needs
- faculty professional development and support in incorporating technology into teaching practice
- on-line and face-to-face support for learners, on-and off-campus
- operation and further development of the Campus Saskatchewan consortium

CommunityNet, a \$71 million province-wide initiative beginning in 2001, will extend high-speed network and Internet access to educational facilities, health facilities, First Nations schools, and government offices in 366 communities. CommunityNet addresses the digital divide between urban and rural regions. Postsecondary institutions and learners will benefit through enhanced access to on-line programs and services at an affordable cost.

Manitoba

- The Department of Education, Training and Youth has a Distance Education and Information Technologies Unit whose purpose is to work closely with school divisions in the development of on-line materials, provide incentives for the release of teachers to develop on-line curriculum materials, and provide professional development and ongoing support to teacher-developers. A departmental policy is currently under development. A key outcome of this policy will be to develop a managed and cooperative environment that supports a distributed model of on-line course delivery.
- In the postsecondary sector, the policy has been to expand on-line education through Campus Manitoba (CMB), a consortium made up of the public colleges and universities and the Council on Post-Secondary Education. CMB is managed for the PSE system through Brandon University. It delivers first- second- and third-year courses to about fourteen communities and to individuals. Community sites tend to be in schools and will offer some support to students. Colleges joined CMB two years ago. It is expected that college programs will become part of the CMB menu in the near future. The Council has been the body through which government policy has evolved. CMB is funded through the Council with an annual operating grant of about \$800,000. In addition, the Council provides CMB with one-time grants for specific projects. In past years, the emphasis was on course development. This year CMB has received a grant of \$300,000 to develop an on-line registration system. It should be noted that CMB imports courses from out-of-province consortia, thus enhancing its program offerings.

- Along with these initiatives, each postsecondary education institution has a variety of on-line programs offered through its Continuing Education unit. Most provide on-line materials and learner supports via WebCT. Some of our institutions are participants in the Canadian Virtual University and the Canadian Virtual College.
- Discussions are under way to use CMB as a portal to high-school, college and university online offerings thus creating a single window for students that will facilitate access.
- On-line education is a priority across the entire spectrum of the public education system as it relates to providing a broad menu of learning opportunities for all citizens of Manitoba.

Ontario

Ontario Knowledge Network for Learning (OKNL)

• OKLN is a comprehensive vision and strategy for technology, enabling learning in K-12 education, postsecondary education, and training in Ontario. The 3-5 year vision and strategy is being developed by the CIO, Community Services Cluster, and the Ministries of Education and Training, Colleges and Universities, based on stakeholder consultations. Details of the strategy and implementation plans continue to be developed. The high level of strategy will be incorporated into the Ministries' business plans.

TV Ontario

- TV Ontario is collaborating with Ontario's Independent Learning Centre to update distance learning material from K to 12 and is also working with an informal group of postsecondary distributed-learning providers to rationalize roles and reduce duplication.
- The Bibliocentre catalogues and distributes information resources for colleges, negotiates
 prices, runs an on-line management development program, and is working on a method of
 distribution for streaming video resources.

Quebec

- As early as 1996, following a consultation involving representatives of educational institutions and civil society, the Ministry of Education of Quebec (MEQ) developed an information and communications technology (ICT) integration plan under which almost \$300 million has been invested since 1997-1998.
- The MEQ is currently developing a second framework plan and policy, covering all areas involved in ICT integration (broadband infrastructure, hardware, content development, teacher training, on-line learning, etc.) and all sectors of the education system including lifelong learning and technical/vocational training. The plan will be implemented in 2002 with funding expected to amount to hundreds of millions of dollars.

- The Conseil supérieur de l'Éducation released a major annual report in 2000 on the integration of technology in teaching.
- In the field, the MEQ has worked with educators to:
 - reate networks of school-based microcomputing enhancement centres to support the use of new ICTs (69 local networks and 10 networks covering groups of regions)
 - > provide funding to all sectors of the education system for on-line distance education courses and programs
 - > provide funding for courseware for classroom use in all sectors of the education system
- MEQ investments have helped upgrade the high-speed, high-capacity telecommunications infrastructure in the education sector. The Réseau d'information scientifique du Québec (RISQ) has received funding of \$35 million for the deployment of the higher education and research information highway (\$15 million for connectivity in the university sector and \$10 million for the college sector); additional funding is under consideration for the K-12 sector.
- The MEQ also supports the upgrading of telecommunications systems of universities.
- Three publicly-funded institutions in Quebec have a mandate and receive specific funding to develop distance education and thus on-line learning: Télé-université for the university sector, Centre collégial de formation à distance (CCFD) for the college sector, and Société de formation à distance des commissions scolaires du Québec (SOFAD). These three institutions have developed a significant number of on-line courses and work together under the Comité de liaison en formation à distance (CLIFAD).
- In addition to the specific funding provided to these institutions to develop on-line learning, other institutions also develop on-line learning options, either at their own expense or thanks to special funding.

New Brunswick

• Premier Bernard Lord has established a Premier's Roundtable on e-NB, which includes an elearning component. Two co-chairs have been appointed.

TeleEducation NB

- TeleEducation NB, http://teleeducation.nb.ca/, provides assistance to New Brunswick educators and course developers in the development and delivery of distance education courses and programs at any level and from any provider.
- Services offered include: research and development; consultation; training; course registration and student information system; secure on-line payment system; standards development; database of distance education resources; access to synchronous distance courses provincially via a shared network of learning centres; and the TeleCampus on-line course directory http://telecampus.com/.

- TeleEducation NB, along with the Electronic Text Centre at the University of New Brunswick and CAREO of the University of Alberta, was involved in the creation of POOL, a portal for objects oriented to learning, based on CanCore metadata protocol, which is a subset of IMS/ IEEE http://www.cancore.ca/.
- TeleEducation NB's Programme Development Fund is in its closing year. Attempts to secure additional funding have not proven successful.

Connect NB Branché

 Connect NB Branché is the coordinating body for the Community Access Centres in New Brunswick. Its mandate is to provide the citizens of New Brunswick with affordable access to the information highway and the opportunities that it offers, utilizing current information technologies in an accessible community environment. In partnership with Industry Canada, Connect NB Branché has created 231 Community Access Centres, the majority of which are located in public schools.

Department of Training and Employment Development

- The NB Department of Training and Employment Development is responsible for the province's community colleges. Currently, the colleges offer 75 on-line courses to learners from around the globe, including corporate clients and the federal government.
- The Community College system is developing a strategic plan, which will address issues related to: the adoption of common development and delivery mechanisms; a portal for on-line courses; collaboration with other agencies; staff development; funding for course conversion; learner support; infrastructure; marketing; and research & development; as well as the integration of e-learning in the classroom. The plan is expected by late August 2001.
- New Brunswick has recently established a new college in the Acadian Peninsula, which will have a significant virtual component.

Nova Scotia

- The Government of Nova Scotia's approach to on-line learning has been rooted in its Information Economy Initiative (IEI), a comprehensive strategy to exploit the economic and social development potential of information technology infrastructure to stimulate educational, employment, and business development opportunities throughout Nova Scotia.
- IEI has concentrated on connectivity, expanding bandwidth, and supporting ICT infrastructure in partnership with the federal government.
- Numerous NS institutions have taken advantage of this investment to offer on-line learning at all levels of the educational system.
- Acadia University, itself a leading exponent of incorporating on-line learning into the curriculum, has been developing methods and technology for e-learning and training teachers through the Acadia Institute for Teaching Technology (AITT), funded by the IEI.
- The NS Department of Education is piloting an Advanced Study Proposal, offering 8 high-school credits on-line. These credits lead to a challenge option for up to 5 university credits.
- Collège de l'Acadie uses computer-based video conferencing systems to provide technical

- and vocational programs in French to its six learning centres in NS and PEI.
- The Strait School Board has several years of experience offering 17 Web-based high-school courses.
- The Nova Scotia Community College is delivering apprenticeship and core programs on-line, through its Virtual Campus, to achieve certificate or diploma qualifications.

Prince Edward Island

- University of Prince Edward Island and Holland College use WebCT and courses are delivered at a distance and Web-assisted at both public postsecondary education institutions, and to PEI's francophone population via distance delivery of programs offered at the Collège de l'Acadie satellite office in Wellington, PEI.
- The UPEI web site < http://www.upei.ca has detailed information about UPEI web courses. Courses and programs are offered by the English Department (8), the Faculty of Business (9), the Faculty of Education (34), the Faculty of Nursing (2) as well as through Extension Services, e.g., the Management Development Program for Women. There are also programs and course materials and learning resources delivered on WebCT at the Atlantic Veterinary College (8).
- UPEI and Holland College jointly developed and offer the following Internet short courses:
 - Basic HTML, Basic Web Site Design, Introduction to E- Commerce, and Web Surfer Basics
- The Holland College Web site < www.hollandcollege.com > has detailed information about its Web courses. Highlighted on the site are courses and programs, including resources available on the Web, that Holland College offers to all students (4), specifically Aerospace & Industrial Technology (1), Business (4), Computer Studies (3), Development (6), Health Services (1), Justice Institute of Canada (3), and those for external clients, e.g., World Potato Learning Centre. The Business Information Technology Program is offered through distance education specifically and most of the other programs offer WebCT Resources.
- In 1994, the Société Éducative de l'Île-du-Prince-Édouard established the Centre provincial de formation pour adultes in Wellington. Thanks to innovations in technology and to linkages to the Collège de l'Acadie in Nova Scotia, la Société éducative avails itself of distance education programming aimed at francophone Nova Scotians. There followed shortly thereafter general education and literacy programs as well as various retraining courses and French as a second language courses. A Master's in Education program is currently being offered to Island teachers of French by the Université de Moncton, and programming from St. Anne's University has also been offered.
- This is done by using the TCP/IP synchronous sharing of applications of their regular programs. Le Collège de l'Acadie satellite office in Wellington offers the following programs through distance education:
 - Services à la personne
 - Santé et soins
 - Éducation à la petite enfance (2 ans)
 - Technologie de l'informatique : gestion de réseaux (2 ans)
 - Techniques de gestion de bureau (bilingue) (2 ans)

- Conseiller en services à la personne
- Études générales
- The administration is currently considering how to offer more Web-based, synchronous and asynchronous opportunities and is working toward this goal.
- An interesting note: Prince Edward Island was the first province in Canada to connect all of
 its schools to the Internet, and as a result, elementary and secondary students have developed
 very strong skills in computer literacy. The strong network of Community Access Program
 sites extends digital access and opportunities for digital literacy to virtually all of its citizens.

Newfoundland

Centre for Distance Learning and Innovation

The creation of a Centre for Distance Learning and Innovation for the province was one of the major recommendations contained in the Panel Report on Educational Delivery in the Classroom, released in 2000. The Centre's mandate is the development and delivery of distance learning programs, using where appropriate and feasible, new Web-based information and communications technologies. The Centre is also expected to include adult learners as part of its clientèle and provide greater access to professional development resources and programs for K-12 teachers. The benefits of establishing the CDLI include:

- a broadening of the programs available to young people and adults, especially in rural communities
- establishment of a stronger communications network, especially in rural communities
- ICT capacity building, especially among rural students and adults
- convergence of face to face, distance and distributed learning models
- greater learning opportunities for all students
- a pooling of expertise in the development and delivery of distance learning programs

Open Learning and Information Network

- Open Learning and Information Network (OLIN) is a provincial network of content- and service-providers committed to the delivery of learning opportunities through technologies in Newfoundland and Labrador. Its primary focus is to provide greater access to learning opportunities through collaborations and partnerships with agencies and individuals committed to an equitable distribution of resources in the province.
- The Open Learning and Information Network, in collaboration with its partners, organizes the development and delivery of a series of professional development workshops for postsecondary partners in distance education. The workshops present knowledge of and skills in the design and delivery of distance and traditional classroom learning that is supported by the new media. Current topics for these workshops include *Instructional Design for Non Instructional Designers*.
- Some of the program areas in which distance learning has proven highly effective and in which the OLIN partners have established a record of success include: Bachelor of

- Technology, Business Administration Certificate, Early Childhood Education, and Responsible Fishing, among others.
- OLIN is working with some of its products and services partners to create pilot projects that
 will demonstrate partnership building across jurisdictions, exemplary and innovative uses of
 technology, and practical distance learning products. Pilot projects related to on-line learning
 include: the Rural Information Technology Pilot Project and the Joint University-College
 Business Courses, among others.
- More information regarding OLIN and the organization's associated initiatives into on-line learning can be obtained at the Web site http://www.olin.nf.ca/

STEM~Net

- STEM~Net is an organization that provides on-line resources to support the needs of the many stakeholders involved in education within the province of Newfoundland and Labrador.
- Its mission statement is to provide high-quality learning opportunities, network access, and on-line resources for students and educators in the K-12 education system of Newfoundland and Labrador by taking a leadership role in educational networking and by developing effective and productive relationships with local, national, and international partners and stakeholders.
- Additional information regarding STEM~Net's organization, objectives, and ongoing projects can be found at the following Web site: www.stemnet.nf.ca.

Yukon

In 1999, the Yukon Government embarked on a multi-million dollar capital project to upgrade the territorial telecommunication infrastructure. The CONNECT Yukon project will bring reliable broad bandwidth connectivity to every Yukon community.

To support the implementation of Distributed Learning, including on-line delivery and development, the EDUNet component of CONNECT Yukon will extend the backbone of the territory's telecommunications network to each rural school and all urban secondary schools.

B. Institutional Initiatives in On-Line Learning

The following is a partial inventory of institutional initiatives in on-line learning.

Newfoundland

College of the North Atlantic (CONA)

- About 160 courses are offered in 7 academic schools in 168 communities to 1,200 students. Another 30 courses are in development.
- Courses are offered through CONA in 8 Canadian provinces and in some foreign countries.
- A greater concentration of courses is offered in the area of Business, although on-line courses are offered in a wide variety of other areas as well.
- There are whole programs offered on-line by way of CONA's DLS (Distance Learning Service). Currently, there are about 12 such programs being offered including: Administrative Writing for Office Communications, Carpentry Enhancement Program for Red Seal Examination, Continuous Quality Improvement Specialist Program, JAVA Programming, Occupational Therapist's Assistant and Physiotherapist's Assistant, Office Administration B Medical, and Teleworking Program. Additional programs are in the works.
- CONA is the first college in Canada to have certified WebCT trainers. WebCT is the world's most popular Web-based learning system. The College is one of only six certified WebCT Institutes in the country and the only one in Atlantic Canada.
- CONA has established an official Distributed Learning Centre in Clarenville. The Centre's fully developed Web site is located at dls.northatlantic.nf.ca..
- There is also a new Learner's Guide designed to assist students who may be unfamiliar with the computer medium used for on-line instruction.

Memorial University of Newfoundland

- Currently, there are about 250-275 credit courses offered by the university on a 3-semester basis. Another 40 are presently in development. About 140 course sections are offered during any given semester.
- There are roughly 4,100 course registrations a semester which comes out to about 3000 individual students. Overall student enrolment in on-line courses for an academic year are upwards of 8,000-9,000 students.
- On-line courses are offered to students in every province of Canada and in several other countries as well, including the United States, England, Taiwan, and the West Indies. There are plans to extend the service to other countries, such as South America, in the future.
- The university is currently developing a course "how to take an on-line course for those students who are less familiar with the computer medium as a teaching/learning tool."
- There are plans to increase the number of on-line courses available by 150 or more in future.

Quebec

- The two publicly-funded postsecondary institutions entirely focused on on-line learning in Quebec (Télé-université and Centre collégial de formation à distance [CCFD]) have already developed over a hundred courses available either fully or partly on the Internet, including some credit courses, all with on-line support available. Both institutions have also developed platforms to design, distribute and manage on-line courses, and are working in partnership with private entreprises to develop certain products. They are also involved in on-line learning research and co-production ventures together with partners in Canada and abroad.
- Several other bi-modal (on-campus and on-line) institutions have also developed on-line learning tools. Since each postsecondary institution is autonomous, Web sites of individual institutions are the best way to survey their projects.
- In the college sector, the MEQ-funded Centre collégial de développement du matériel didactique (CCDMD) presided over the development of many on-line learning programs for use by member colleges. CCDMD has also created an on-line professional development tool (la Salle des profs) for all college instructors.
- Generally speaking, ICT-related activities are increasing. These activities, in which the MEQ plays a part, include: the enhancement of telecommunication infrastructures; hardware procurement; the development of computer applications such as access and operating systems, as well as content and educational instruments; teacher training; and research. In particular, research in all the areas mentioned earlier is also increasing thanks to new investment in the field since 1998 by both the federal government and the province.

Ontario

Contact South

- In 1995, Contact South, a consortium of 7 colleges of Applied Arts and Technology aligned to offer on line education in Ontario. Five years later, and with a new name, this group of postsecondary institutions has tripled in size and now includes 21 colleges.

 www.ontariolearn.com will surpass their target of 11,000 student registrations during this fiscal year. This represents a 44% increase over the previous year. OntarioLearn.com will build on this success and continue to be recognized as the leader in on-line education throughout the province of Ontario.
- OntarioLearn.com currently offers more than 240 on-line courses to thousands of college students each semester with another 175 courses under development. The partnership approach has provided a unique opportunity for students in Ontario (and beyond) to pursue their educational goals.

Contact North/Contact Nord

- Contact North/Contact Nord is the largest distance education network in Canada with 12 successful years of experience, providing access for many thousands of learners to secondary school and postsecondary courses and programs in French and English in small and remote communities in Northern Ontario. Contact North offers reliable, cost-effective network of instructional technologies and advanced telecommunications that allow learners and educators to see, hear, and interact with each other in real time in spite of the barriers of distance, sparse population, and climatic extremes.
- The most important components of the network are the staff who are available to provide program and course information, support, liaison, and technical assistance as required for both learners and instructors. As a result, faculty, teachers, and trainers are able to reach their students in 145 sites located in over 100 Northern Ontario communities. Beyond the classroom applications of distance technologies, District School Boards also call upon the Contact North network to conduct their business both internally and with the public.
- The Contact North network serves not only the educational sector, but also business and industry (workforce trainers and other professional development personnel) and public and private sector organizations that increasingly access the network to conduct their business at a distance. In a recent nine-month period, for example, the client list exceeded 160 colleges, universities, schools, government ministries, agencies and offices, community and non-profit organizations, and private sector organizations.

Colleges Distributed Learning Task Force

 Ontario community colleges are currently developing a business case for a Distributed Learning Network. Ontario universities have set up a Task Force on Learning Technologies to examine opportunities and barriers and facilitate a more effective use of learning technologies.

Saskatchewan

- Saskatchewan postsecondary institutions have accelerated the implementation of on-line learning over the past year. Close to 100 on-line courses are available or under development. In addition, there are many courses where on-line technologies are being used to enhance classroom delivery and learning resources.
- Institutions are developing more detailed plans and strategies for advancing technologyenhanced learning within their particular mandates and context. The province's eight regional colleges, for example, will provide (on a pilot basis starting later this year) locations outside the major cities where on-line learners can access off-campus support services.
- The Saskatchewan Institute of Applied Science and Technology (SIAST) has established a
 virtual campus for on-line, multi-site delivery of its technical education and training courses
 and programs. SIAST plans to eventually make its full array of programs available using
 technology. In order to prepare faculty for this transition, "greenhouses" for professional
 development, experimentation, and support are being established at each of the institute's
 four campuses.

• The province's two universities are identifying academic priorities for on-line learning within their institutional plans and mandates. Technology-enhanced learning leads the universities to examine the current organizational structures for providing instructional, technical, and extension services. The University of Regina, for example, is planning the development of a New Media Learning Centre to bring together a number of functions in order to better support and promote on-line learning.

Alberta

- The University of Alberta is continuing to focus on on-line learning, with over 100,000 course seats on WebCT, according to *Folio*, April 20, 2001 http://www.ualberta.ca/~publicas/folio/.
- Both the Northern Alberta Institute of Technology (NAIT) and the Southern Alberta Institute of Technology (SAIT) are moving toward providing significant learning opportunities on-line. To support their initiative, NAIT has developed the MERLIN system as a central repository of 30,000 modules of digital course content for on-line and face-to-face instruction. (www.nait.ab.ca/inservice2001/sessions/tci190-07.htm)
- The Calgary Board of Education through Chinook College is making strides in implementing on-line learning in traditional school settings. (http://www.chinookcollege.com/)
- CAREO (Campus Alberta Repository for Educational Content) is working to develop shared standards for saving and structuring digital content, to enable its use by multiple software formats. This is similar to, and shares links with, the MERLOT educational object repository used in the United States. (http://www.careo.org/)
- NETERA (http://www.netera.ca/) Netera Alliance is a not-for-profit corporation of universities, research institutions, government, and small and large private-sector companies facilitating advanced information infrastructure.

British Columbia

All institutions are moving forward in the use of technology to enhance face-to-face instruction or to provide fully on-line instruction. Some notable examples are:

The Open Learning Agency (OLA)

OLA, a British Columbia public postsecondary institution, is recognized internationally as a leader in the use of educational technology and training services. Current OLA programs and services include:

- <u>BC Open University and the Open College</u>, which provide accredited courses through distance education
- Open School, which provides distance education programming for adult learners, First Nations learners, and the entire K-12 school system
- <u>Knowledge Network</u>, a public broadcasting network that provides academic and public programming

- <u>Canadian Learning Network (CLN)</u>, with more than 5,800 annotated links to free resources on educational WWW sites, is designed to help K-12 teachers integrate technology into their classrooms.
- <u>Electronic Library Network (ELN)</u> develops, promotes and maintains system-wide mechanisms that allow postsecondary libraries to meet increased demands from British Columbia's learners and educators.
- Electronic Bachelor of Business Administration (e-BBA) degree The development of this electronic degree program has involved defining 'learning objects' and creating, identifying and pulling together appropriate 'learning objects' as part of the program's curriculum. It has also involved creating a 'tagging' system to enable use in a variety of media and other appropriate academic programs, and using a unique, retrievable database software to store the 'learning objects.'

New Public Universities

- Royal Roads University (RRU) Focused on the needs of mid-career learners, RRU is at the forefront of a transformational change in postsecondary education. RRU incorporates the expertise of industry, the public sector, and institutional partners in program development and instructional delivery to ensure program relevance and quality.
- The Technical University of British Columbia (TechBC) TechBC is Canada's newest publicly funded university. TechBC is a unique and specialized institution that offers programs to address the needs and future directions of knowledge-based industries, and over 50 per cent of its programming is on-line. It offers graduate and undergraduate programs as well as continuing and corporate education programs. Currently, there are three program areas offered: Information Technology, Interactive Arts, and Management and Technology. Consistent with its mission, TechBC's academic programs will expand to meet the needs of learners and industry in the 21st century.

The CanLearn Project (University College of the Fraser Valley)

- CanLearn is a \$1.4 million partnership project funded by Industry Canada/CANARIE, the University College of the Fraser Valley, and B.C. Learnware, a consortium of private sector partners.
- It combines the talent and expertise of UCFV faculty and staff and leading-edge British Columbia learnware firms to create 50 multimedia, Web-based, on-line courses. They will include video-streaming and audio components, and will be based on a universally accessible format, ensuring equal access regardless of ability or disability.
- CanLearn's goal is to create a Bachelor of Arts (BA) degree offered completely on-line. The first courses are scheduled to be available in September 2001. Students will be able to earn a general BA, or concentrate on one or more subject themes. UCFV's Literacy Tutor certificate program, which trains tutors, is also slated for on-line delivery.

Other provincial and institutional initiatives and programs include:

Centre for Curriculum, Transfer and Technology (C2T2)

C2T2, an arm's-length government agency funded by MAETT, encourages and facilitates the use of educational technology in the college, university college and institute system. It includes the following:

- <u>e-merge (formerly the Collaborative On-Line Project for E-Learners)</u> is a system-wide collaborative effort to develop and deliver on-line courses and programs, share support and administrative services, and collaborate on credentialing issues.
- <u>BCCourses.com</u> is an on-line directory providing information on credit courses offered at a distance, through a variety of media and formats, in British Columbia's postsecondary system.
- <u>BC Educational Technology User Group</u> consists of provincial educators who are interested in discussing educational technology practice and theory, exchanging information, and sharing ideas.
- <u>Curriculum Development Group</u> provides provincial leadership and support in developing new curriculum and new approaches to curriculum.
- <u>Good Practice Registry</u> brings together many local learning-centered practices and allows people to share their best practices with other on-line learners and educators.
- On-line Developers Exchange Network (ODEN) contains details of on-line educational projects under development in British Columbia's public postsecondary sector and is intended to support the sharing of information, cooperation, and collaboration among colleagues working with educational technology.

British Columbia Council on Admissions and Transfers (BCCAT)

BCCAT administers a highly developed postsecondary articulation and transfer system to facilitate inter-institutional credentialing. Related initiatives include <u>British Columbia Transfer TIPS</u>, developed by BCCAT as a user-friendly site outlining how transfer between British Columbia postsecondary institutions works. It includes tips, student quotes, scenarios, a personal plan and checklist.

"Education Portal"

The Education Portal is designed to be the primary means for accessing all Ministry of Education (MOE) on-line provincial educational and administrative services and resources (e.g., calendars, course listings, a best practices database). MAETT is working with MOE to extend the portal to include postsecondary services.

The Centre for Education Information Standards and Services (CEISS)

CEISS provides research and technology services, helps students make more informed education and career decisions, facilitates program evaluation, and reduces the administrative requirements of postsecondary institutions. Services include:

- Opening Doors a one-stop information centre on public postsecondary education in British Columbia. Search quickly and easily among the more than 1,700 full-time programs (1,395 full-time undergraduate programs) offered by the 28 colleges, university colleges, universities, and institutes. Compare search results by program details, tuition costs, and admission requirements.
- <u>Post-Secondary Application Service of British Columbia (PASBC)</u> Canada's first internet application-for-admission service provides services to 19 British Columbia universities, colleges, and institutions.

National Centre of Excellence

- located at Simon Fraser University
- The TeleLearning Network of Centres of Excellence (TL•NCE) stimulates and tracks leading telelearning research advances in collaboration with university and industry partners throughout the world. Over 60 faculty members from 28 Canadian universities are evaluating the effectiveness of new learning models, analyzing the cost-benefits and social impact of implementing telelearning, and creating new educational technologies.

Motiv8

- the official school-to-work transition Web site for British Columbia and the Yukon
- designed to help students and youth navigate their school-to-work and school-to-more-school transitions

bcopportunities.com

- a comprehensive guide to postsecondary education, training, and careers
- includes a searchable database of the credentials available in all the major program areas at British Columbia's 28 postsecondary institutions, and a comprehensive listing of the apprenticeships available in British Columbia

Northwest Territories

- Brokering courses through Chinook College.
- Developing on-line versions of Career and Technology Studies (CTS) courses.
- Developed Northern Studies curriculum; has been pilot-tested and is now being delivered in schools
- Aurora College is developing the courses for the Certificate in Adult Education Program so
 that they can be completed on-line. Currently the courses are offered through
 teleconferencing.
- The Early Childhood Education Certificate and diploma programs are offered in partnership with Yukon College through various distance learning means.
- Management Studies courses are offered in partnership with Athabasca University and delivered via teleconferencing.

• There are courses in the Teacher Education Program that are offered through satellite delivery.

Yukon

Yukon College

The Distributed Learning Unit at Yukon College provides services and courses to college students, partners, and clients. This unit also provides support for audio-conferencing, audio, graphics, on-line learning, computer communication, and interactive multimedia technologies.

- Approximately 50 courses were offered to 450 students.
- Subject areas ranged from Northern Studies and Criminology through computer applications, Early Childhood Development, Accounting, and Computer Science to Adult Basic Education offerings.
- Articulation and delivery agreements in place with Athabasca University, Open University/College, SAIT Access Technologies, and NAIT (Electrical Competency-Based Apprenticeship Training).
- Delivery modes/methods/options include: print, teleconference (audio and video), videotape and audiotape, Web/Internet, and fax.
- Community tutorial support available.
- Partners include: Yukon First Nations, Territorial Government (Advanced Education, Economic Development), Federal Government (HRDC, Industry Canada) and other educational institutions.
- In the process of implementing the University of the Arctic, which will include a virtual learning component, with 31 Northern partners from 8 circumpolar countries.

In addition, the counselling area of the College provides several on-line opportunities for the purposes of career investigation.

C. Institutional Initiatives crossing provincial/territorial boundaries

- COHERE is a consortium that includes many of Canada's leading research universities. The common theme throughout the COHERE Project initiatives is the integration of our research culture and values into the development and application of on-line learning researchenhanced teaching for technology-enhanced learning whether at a distance or in combination with more traditional on-campus activities.
- CampusWest.Ca is an initiative to develop a consortium of Western Canadian universities involved in the delivery of distance- and open-learning. The consortium intends to develop a comprehensive inventory of course offerings on the Web, a Web-based forum for discussion around development, research, and collaboration among distance education providers, and procedures that give students within Western Canada flexibility and portability of courses among universities. The consortium has made progress in compiling a database of courses to support the inventory, along with credit transfer information.
- The Canadian Virtual University is a partnership among a number of institutions from across Canada that are at the leading edge of on-line learning. Headquartered at Athabasca University, the Canadian Virtual University works to complement the offerings and programs of its member institutions. (http://www.cvu-uvc.ca/)