At a Glance

• Accessible education is an important part of a well-functioning labour market and a key to improving Canadian productivity.

• The OntarioLearn model of college program coordination increases student access while reducing costs and encouraging pedagogical innovation.

• Canada has the opportunity to be a leader in education access and innovation through e-learning.
Executive Summary

Higher education is being strongly impacted by the digital revolution, and institutions of higher education are discovering innovative ways of using new technologies to their advantage. E-learning was embraced early on by Ontario colleges, and they formed the OntarioLearn consortium to coordinate their efforts and optimize this delivery method for Ontario’s students. By harmonizing the e-learning offerings made available by member colleges, OntarioLearn has improved the accessibility of college education to students, reduced costs, and increased the quality and diversity of the province’s overall course offerings.

With institutions of higher education looking to improve their value proposition at the same time that governments are looking to increase levels of higher education among under-represented groups, OntarioLearn demonstrates a proven model for achieving both goals. This has helped Ontario to achieve improvements in its labour market productivity, skills development, and higher education levels. Canada as a whole has the opportunity to become a leader in the global development and delivery of online education by examining these types of leading practices.

This briefing was prepared with financial support from the Centre for Skills and Post-Secondary Education, The Conference Board of Canada.
The Conference Board of Canada

Overview

Human capital is a key driver of productivity growth in Canada and an important component of overall economic performance. One of the major deficiencies of Canada's labour market performance is that "a number of groups are not reaching their full potential in the labour market, including less-skilled individuals, recent immigrants, Aboriginal peoples, persons with disabilities, and older Canadians." Looming trends will also make the effectiveness of labour markets a greater challenge in the future as Canada is affected by population aging; increased diversity; globalization of trade, markets, and skills; and heightened skill requirements in Canadian jobs due to technological advances and other factors.

Given that labour market effectiveness can be improved by matching training (supply) to industry's skills needs (demand), and that demand is rising, the responsiveness and inclusiveness of post-secondary education are becoming increasingly important to sustaining Canadian labour markets. This has created an imperative to deliver post-secondary education more widely and in a manner that is compatible with newly emerging educational delivery requirements. The Organisation for Economic Co-operation and Development has recommended that to improve labour market effectiveness, Canada should "promote a more flexible delivery model of higher education to encourage skills upgrading." Key elements would include strong credit-transfer arrangements among post-secondary educational institutions and across jurisdictional boundaries, and greater use and recognition of online and distance learning resources. E-learning is an optimal strategy for doing so.

3 Ibid.
Research by The Conference Board of Canada found that “the most successful countries of the 21st century will focus on lifelong learning, and the most innovative will use e-learning to do so.”\(^5\) OntarioLearn, an e-learning consortium of all 24 Ontario colleges, is a leader in this area and represents the only arrangement of its kind in North America. First established on a small scale in 1995 (see “The Origins of OntarioLearn”), OntarioLearn employs a model that balances educational flexibility, efficient delivery, and accessibility of courses by fostering collaboration and cooperation among Ontario’s colleges and institutes.

### The Origins of OntarioLearn

OntarioLearn’s origins stem from 1993, when Loyalist College in Belleville began to offer an online option for its computer literacy course as a way to increase attendance and keep up with high demand. Students at Ottawa’s Algonquin College were also interested in this type of computer literacy course, but Algonquin lacked the capacity at the time and wanted to avoid duplication of effort. Instead, arrangements were made to offer Algonquin students the computer literacy course through Loyalist College. In return, Algonquin College developed an online English writing course available to the students at both colleges. This grassroots innovation established the fundamentals that would continue to guide the OntarioLearn consortium after its founding in 1995 under the name “Contact South.”

### Objectives

OntarioLearn’s main objective is to improve the delivery and availability of college courses, while reducing costs and promoting new course offerings. E-learning opportunities address the challenge of reaching students who are geographically distant from college campuses. This is important since 22 per cent of OntarioLearn students surveyed in 2014 cited distance from a college campus as a reason for taking courses.

---

E-learning also makes college courses more accessible for groups that often face obstacles to succeeding in a traditional learning environment, including First Nations and people with disabilities. (See “E-Learning and Equitable Access.”) E-learning efforts help to ensure that all groups with an Internet connection have comparably equitable prospects for accessing education at an Ontario college.

E-Learning and Equitable Access

As e-learning is accessible to anyone with a computer and reliable Internet access, it is an especially equitable form of educational delivery. Previous research has highlighted the benefit of employing technology to deliver cost-effective and accessible training to persons with disabilities. The universal design principles guiding computer design and online courses help to ensure accessibility for people of all ages and abilities. There are other advantages of e-learning for First Nations in particular, as they may wish to avoid traditional educational institutions that are reminiscent of the residential school system. “E-learning,” noted a 2010 Conference Board of Canada report, “has the potential to help close the education gap between First Nations people living on a reserve and non-Aboriginal people in Canada by minimizing the barriers to educational success that First Nations people living on a reserve face.”

In addition to geographic access considerations, the OntarioLearn consortium aims to improve the flexibility of learning by making course materials and support resources available to students 24 hours a day, seven days a week. This drive stems from an understanding that many students have commitments during weekdays and would be poorly served by a system that can only offer support during daytime hours. As a case in point, a 2014 survey conducted by OntarioLearn determined

7 Campbell, Skills and Opportunities for Entrepreneurs with Disabilities—IBDE Program.
8 Wright, Tapping the Talents of People With Disabilities, 42.
9 Sisco, Optimizing the Effectiveness of E-Learning for First Nations.
10 Ibid.
that fully 69 per cent of OntarioLearn students are employed while they study. Unlike traditional course offerings, which are based on student intakes once per semester, OntarioLearn offers up to 14 different intake times per year. This enables students to begin courses as needed and according to their schedules, rather than simply two or three times a year when there is availability.\textsuperscript{11}

Finally, OntarioLearn is designed to support a diversity of learners. OntarioLearn students represent a wide range of age groups (see Table 1) and educational backgrounds, with 68 per cent having already completed some post-secondary education. Compared with the traditional composition of college students, OntarioLearn disproportionately supports lifelong learners, adult learners, and other people looking to “upskill.” Consequently, OntarioLearn services students with a wide range of educational needs and interests and strives to provide a similarly expansive range of course offerings to match students’ demands.

\begin{table}
\centering
\begin{tabular}{l|c}
\hline
Age & Proportion of students \\
\hline
Under 20 & 4 \\
20–29 & 38 \\
30–39 & 25 \\
40–49 & 20 \\
50–59 & 12 \\
Over 60 & 2 \\
\hline
\end{tabular}
\caption{OntarioLearn Student Demographics, 2014 (per cent)}
\end{table}


\textsuperscript{11} OntarioLearn, 2014/2015 Annual Report, 4.
A key advantage of e-learning systems is the degree of transferability that they offer.

**Processes**

OntarioLearn uses a partnership model in which its activities and the course offerings of member colleges are coordinated to improve results for all members of the consortium. Each college is responsible for developing, administering, updating, and maintaining the courses and course curriculum that they deliver through OntarioLearn. Students pay course fees to the college where they are registered, regardless of which college delivers the course. All colleges pay a small annual fee to OntarioLearn, as well as a pro-rated share of the course development costs to the college that delivers the course. This approach cuts down on course duplication and helps colleges to optimize resources, and “… more importantly, pursue academic excellence through collaboration, flexibility, convenience, and choice to meet the many and diverse needs of online learners.”

A key advantage of e-learning systems is the degree of transferability that they offer. Courses taken through OntarioLearn are recognized by each of the member colleges and are therefore easily transferable between these institutions. In fact, when credits are issued for OntarioLearn courses, there is no notation of whether the course was delivered through e-learning or a traditional classroom setting. “In the early stages, there used to be some concerns about whether e-learning was equivalent to traditional learning,” explained Dr. Mary Blanchard of Durham College. “But now there is a wide recognition that this only represents a difference of delivery mechanism, not of content or quality of education.” Completed courses can then be transferred to other college or university programs with the same degree of accreditation as any other college course. In some cases, online courses may also be blended with traditional “brick and mortar” programs to provide students greater flexibility in program completion.

---

12 Ibid., 3.
13 Dr. Mary Blanchard (Associate Vice-President, Academic Planning—Durham College), interview by Mark Robbins, July 16, 2015.
The ability of a college to develop and deliver a course is determined on a first-come, first-served basis; once a college has begun to deliver a particular course or to cover a particular subject, the other consortium members are barred from competing with the same material. In some instances, it is a very routine determination of which course material is already being covered and is thus ineligible for another consortium member to deliver. For instance, Algonquin College is recognized as having permission to deliver all Introduction to Accounting courses. This determination can be less routine in cases where there is an overlap in some, but not all, elements of course material. This might include a course in bookkeeping that relies heavily on the same lessons and learning materials as Introduction to Accounting. In these cases, OntarioLearn’s permanent staff review the competing materials and determine whether the new course is adequately distinct from the existing course. Based on this evaluation, OntarioLearn decides whether to grant permission for the new material.

**Resources**

As a result of its grassroots origins, OntarioLearn’s establishment and continuing operations did not require a major dedication of outside resources. Instead it was shaped by a careful division of responsibilities among its members. Member colleges now focus on specific courses and curriculum that they are able to deliver, while the OntarioLearn administration addresses the coordination and management of these course deliverings. Technical support and online course delivery software are a function of external contractors, though there has been mutual assistance among software providers, technical support companies, and the OntarioLearn administration.

**Innovations**

The core innovation of OntarioLearn is the model of cooperation among the colleges, which results in stronger outcomes for its entire membership. Since students can easily attend the online courses offered
by any college in the OntarioLearn consortium and are not limited to their closest college, e-learning creates the potential for destructive competition. OntarioLearn prohibits colleges from developing learning resources for the same audience of potential students. This restriction ensures that member colleges do not create online courses that are already being offered by another college and harmonizes college e-learning initiatives across the province.

This coordinated approach is one of the key tenets of the OntarioLearn consortium. It helps to limit course duplication and promote new course offerings. OntarioLearn continuously broadens its course offerings by recruiting new professors to develop new courses and curricula. Furthermore, by making OntarioLearn’s courses available to all students attending member Ontario colleges, the consortium improves the scale for niche curricula, making it possible to offer a greater diversity of courses and programs for those wanting to improve their skills or stay current. This, notes a Finance Canada report, is especially important as specialized learning is an important part of upskilling and “skills upgrading with an emphasis on education and training will be required for Canada to compete in the global economy and fully realize the benefits of future innovations.”14

Online learning delivery gives faculty a strong ability to innovate in their course delivery and find new ways of engaging students in learning. Innovations such as gamification and virtual reality learning are possible, and increasingly practical, in an e-learning space. There is some evidence that participation in OntarioLearn helps to cultivate an environment where this type of pedagogical innovation is encouraged. Furthermore, there are synergies between the courses developed for OntarioLearn and the e-learning tools used for other courses at each college since improving capacity in one of these areas has a knock-on

effect for the other. This is of particular significance, and observers have noted that Canada has the prerequisite attributes to become a global leader in online learning.\textsuperscript{15}

**Challenges**

While colleges recognize that curriculum offered through e-learning is equivalent to traditional classroom-based learning, some concerns remain that e-learning may not be as effective as classroom learning. Analysis of a 2012 survey of graduate management students found that students who did not participate in extra-curricular activities were as much as 25 per cent less likely to gain successful employment compared with students that were active in extra-curricular activities.\textsuperscript{16} This points to a clear disadvantage of e-learning, since distance students are unable to participate in local college activities that develop the employability skills (“soft skills”) that employers seek. Although a majority of OntarioLearn students have already completed some traditional post-secondary education or have already been employed, this overall perception that e-learning inadequately develops employability skills may have hampered online learning program growth.

Although e-learning is touted as an inexpensive way for post-secondary institutions to offer education, it has also been argued that evidence for this is lacking. Some analysts argue that the resources required to develop and maintain online programs “represent significant investments in capital, software development and support, and highly skilled personnel, in addition to faculty members.”\textsuperscript{17} In fact, the direct costs associated with membership in the OntarioLearn consortium are minimal; indirect costs that colleges incur during course development are more substantial. “E-learning is not ‘cheap,’” explained Dr. Audrey Penner, Vice-President of Academic and Student Services at Northern

\textsuperscript{15} Contact North, *Online Learning in Canada: At a Tipping Point*, 21.
\textsuperscript{16} Graduate Management Admission Council, *Global Management Education Survey*, 21.
\textsuperscript{17} Snowdon, *Canada’s Universities: Cost Pressures, Business Models, and Financial Sustainability*, 41.
There are difficulties surrounding the availability of the high-speed Internet access needed to adopt e-learning.

College. “It is complex and there are substantial costs associated with it. However, if e-learning is done correctly, it has the potential to be more economical than traditional delivery.”\(^\text{18}\) This is because online learning platforms, such as OntarioLearn, have a potential for scale that simply does not exist for traditional course delivery.

The potential for scale could add significant course development and maintenance costs for OntarioLearn. E-learning platforms encourage new possibilities for student engagement, such as the ability to provide live hyperlinks to relevant resources throughout the material. But these hyperlinks must be kept up to date, references must be updated more frequently and related digital resources must be refreshed to remain relevant to students.\(^\text{19}\) However, on balance, these costs are more than offset by the reduced building and maintenance costs for physical infrastructure.\(^\text{20}\)

Preventing cost overruns thus requires careful management of course development and guidance for professors developing new courses. Durham College, which hosts the largest number of courses offered through OntarioLearn, has established a centre to help and coach faculty in the development of online learning materials and other new learning technologies. Not only does this resource drive experimentation and enrich learning outcomes for students, but Durham College’s Centre for Academic and Faculty Enrichment (CAFE) helps to teach Durham’s faculty how to create course material for OntarioLearn efficiently and effectively.

While OntarioLearn has been able to make dramatic improvements in the availability of education in rural and remote areas, there are difficulties surrounding the availability of the high-speed Internet access needed to adopt e-learning. Ontario faces barriers to universal broadband Internet access due to low population density in rural areas.

\(^{18}\) Dr. Audrey Penner (Vice-President, Academic and Student Services—Northern College), interview by Mark Robbins, July 17, 2015.

\(^{19}\) Based on interview results.

\(^{20}\) Penner, “Normal 3.0 in Post-Secondary Education: Gazing Into Higher Ed’s Future.”
and the North, precisely the areas that could benefit the most from the availability of e-learning. This lack of broadband connectivity in sparsely populated areas is such a challenge across Canada that the Federation of Canadian Municipalities has declared a “broadband gap” in rural Canada. This limitation of Canadian telecommunications infrastructure will continue to limit the reach and impact of OntarioLearn and similar e-learning initiatives. However, there has been some early exploration into developing “lite” courses that minimize the necessary Internet speed for course delivery in rural areas, though these are viewed as temporary measures.

**Keys to Success**

From the earliest stages, strong professional relationships between counterparts at each college were crucial to OntarioLearn’s success. These relationships created a space where innovation and collaboration between the colleges could begin to take shape, and this has continued to be an important feature of OntarioLearn. In the late 1990s, external pressures from the provincial government challenged colleges to reduce spending and improve the efficiency of their educational delivery. Through its existing strong fundamentals and interpersonal goodwill between members, OntarioLearn was able to rise to the occasion by rapidly expanding its course offerings and membership.

Although the responsibility for managing course development costs ultimately rests with each individual college, OntarioLearn has been able to reduce the costs of course delivery to the educational system as a whole. This is made possible by dependable credit transfer and recognition of courses taken through OntarioLearn by all member colleges, which in turn minimizes systematic duplication of programs and materials. This is an important element in making OntarioLearn courses

---

21 Sheikh, Rural Ontario’s Still Using Dial-Up Speed Internet—Here’s Why.
22 Federation of Canadian Municipalities, Broadband Access in Rural Canada: The Role of Connectivity in Building Vibrant Communities.
23 Interview findings.
more scalable, increasing the offerings of Ontario’s colleges, and improving the accessibility of college education to Ontario’s students. Furthermore, OntarioLearn exists as a central node where educational initiatives can be developed, coordinated, and extended outward. This is a step in the right direction toward further harmonization of education, industry, and other elements of government policy.24

In the early stages of OntarioLearn’s establishment, finding a technical support provider that could keep up with the consortium’s demands was a challenge. With OntarioLearn gaining popularity and growing so quickly, early expansion was limited by the size and capacity of firms contracted to provide these technical support services to OntarioLearn students. Although amiable relations between OntarioLearn and these firms went a long way toward ensuring positive support for students, OntarioLearn had to continuously seek out new contractors who could properly service its enrolment growth. This experience points out an important lesson. Organizations—such as OntarioLearn—that depend on new technologies and innovations are likely to run up against the invisible limits of what services and price the market is able to provide, and they must be prepared to adapt accordingly. Ideally, they should be proactive in lining up adequate support services to enable scale when they first plan substantial online growth using new and innovative technologies.

**Impact and Benefits (and Outcomes)**

The appeal of the OntarioLearn model to Ontario colleges has resulted in rapid expansion of its offerings and student base. In 2000, OntarioLearn offered 285 online courses and attained 11,314 course registrations. By 2015, OntarioLearn offered nearly 1,191 different online courses, a 420 per cent increase. And it had fulfilled 73,059 course registrations, an increase of 646 per cent. OntarioLearn’s success rate (measured as the share of students who successfully completed their course) was

---

24 Robbins, *The 1,000 Talents Program: What Canada Can Learn About Faculty Retention in China.*
77.9 per cent in 2014, the highest in five years, and the course attrition rate dropped to 10.5 per cent. Overall, OntarioLearn students in 2014 reported an 89 per cent course satisfaction rate.25

The success of OntarioLearn varies somewhat from college to college, but there are indications that it has improved the overall capacity to deliver college education in Ontario. OntarioLearn has facilitated the creation of new courses, improved the accessibility of college education and created a framework for improving cost efficiencies. The Canadian Chamber of Commerce says that the OntarioLearn model is particularly timely, as “graduate certificate programs are mushrooming across Canada. They are responding to demand among undergraduates or recent graduates for additional credentials related to jobs in demand and they also offer upskilling for existing employees with post-secondary degrees.”26

Although it was originally anticipated that member colleges would host an approximately equal share of the courses delivered by OntarioLearn, this has not been the case. The five colleges hosting the most course enrolments27 represent nearly 75 per cent of OntarioLearn’s total offerings, while the five colleges hosting the least courses28 represent less than 2 per cent. Under the current funding model, colleges hosting courses receive only a small share of the registration fees collected by the college where the student has registered. This unintentional development is being addressed by a revenue model transition proposal under consideration by the Ontario Ministry of Training, Colleges, and Universities.

26 Canadian Chamber of Commerce, A Battle We Can’t Afford to Lose: Getting Young Canadians From Education to Employment, 23.
27 The five colleges hosting the most OntarioLearn course enrolments are Durham College, Loyalist College, Algonquin College, Seneca College, and Mohawk College.
28 The five colleges hosting the least OntarioLearn course enrolments are St. Clair College, George Brown College, Northern College, Humber College, and Georgian College.

Find Conference Board research at www.e-library.ca.
**Future Directions**

Provincial governments have the authority to mandate changes in the education system, which includes cooperation among post-secondary institutions. As the case of OntarioLearn demonstrates, there are strong financial and pedagogical incentives for enhancing the coordination of digital education. To this end, the government of Ontario announced in January 2014 that it was working to develop a Centre of Excellence for Online Learning to launch during the 2015–16 academic year. Similar to OntarioLearn, the Ontario Online Learning Consortium (OOLC) is aimed at providing an online hub that improves collaboration between Ontario’s colleges and universities, reduces duplication of courses (saving money for schools and students), and improves course accessibility.\(^{29}\) OntarioLearn will continue to operate under the OOLC’s umbrella in coordination with its initiatives and in support of its goals to improve e-learning in Ontario. OntarioLearn provides a good example of cooperative delivery of digital education for post-secondary institutions across Canada and abroad.

Improvements are still being sought. OntarioLearn is investigating how it can increase its appeal to students and develop new types of course design. This includes exploring a greater focus on attracting international students. At present, only about 5 per cent of OntarioLearn students are internationally based, and almost all of them are members of the Canadian Armed Forces. Given the federal government’s goal to double the number of international students and researchers in Canada by 2022,\(^{30}\) it will be important to examine how the OntarioLearn model can adapt so as to contribute to this new imperative. Since e-learning’s enhanced accessibility makes it especially attractive for people with

---

\(^{29}\) Bradshaw, “Ontario to Launch $42-Million Central Hub for Online Post-Secondary Classes.”

\(^{30}\) CBC News, “Canada Wants to Double Its International Student Body.”
disabilities, and given that globally there are approximately 1.3 billion people (the equivalent market size of China) living with disabilities, this could be an especially fruitful area for international expansion.

OntarioLearn is also exploring how it might develop training partnerships with industry, although it is unclear at this point exactly how this type of partnership would develop. Some potential avenues for cooperation include the delivery of proprietary curriculum, participation in professional accreditation, or the development of highly modularized courses that enable employers to customize their own training regimes from OntarioLearn’s content.

Tell us how we’re doing—rate this publication.

www.conferenceboard.ca/e-Library/abstract.aspx?did=7778

---

Acknowledgements

This briefing has been prepared by The Conference Board of Canada, under the direction of Dr. Michael Bloom, Vice-President, Industry and Business Strategy. The briefing was researched and written by Mark Robbins, Research Associate. This briefing was prepared with financial support from the Centre for Skills and Post-Secondary Education, The Conference Board of Canada. Our thanks to the many stakeholders of the Centre’s work who read and commented on drafts of this briefing—their helpful insights and feedback greatly contributed to its value. The findings and conclusions of this briefing are entirely those of The Conference Board of Canada. Any errors or omissions in fact or interpretation remain the sole responsibility of The Conference Board of Canada.

About the Centre for Skills and Post-Secondary Education

The Conference Board of Canada’s Centre (SPSE) is a major five-year initiative that examines the advanced skills and education challenges facing Canada today. While education is a provincial/territorial government responsibility, improving the skills and post-secondary education system is a national priority. The Centre involves a broad collaboration of public and private sector stakeholders working together to think through the development of a national strategy. The Centre addresses Canada’s advanced skills needs by helping to renew the roles, structure, activities, and impact of post-secondary education, while ensuring Canada’s skills development, sustainability, competitiveness, and quality.

For more information about the SPSE, visit www.conferenceboard.ca/spse.
APPENDIX A

Bibliography


Canadian Chamber of Commerce. *A Battle We Can’t Afford to Lose: Getting Young Canadians from Education to Employment.* Ottawa: Canadian Chamber of Commerce, 2014.

—. *Canada’s Skills Crisis.* Ottawa: Canadian Chamber of Commerce, 2012.


Contact North. *Online Learning in Canada: At a Tipping Point.* Thunder Bay: Contact North, 2012.


About The Conference Board of Canada

We are:

- The foremost independent, not-for-profit, applied research organization in Canada.
- Objective and non-partisan. We do not lobby for specific interests.
- Funded exclusively through the fees we charge for services to the private and public sectors.
- Experts in running conferences but also at conducting, publishing, and disseminating research; helping people network; developing individual leadership skills; and building organizational capacity.
- Specialists in economic trends, as well as organizational performance and public policy issues.
- Not a government department or agency, although we are often hired to provide services for all levels of government.
- Independent from, but affiliated with, The Conference Board, Inc. of New York, which serves nearly 2,000 companies in 60 nations and has offices in Brussels and Hong Kong.
The E-Learning Edge: Improving Access With OntarioLearn
Mark Robbins


©2016 The Conference Board of Canada*  
Published in Canada | All rights reserved | Agreement No. 40063028 | *Incorporated as AERIC Inc.

An accessible version of this document for the visually impaired is available upon request.  
Accessibility Officer, The Conference Board of Canada  
Tel.: 613-526-3280 or 1-866-711-2262  E-mail: accessibility@conferenceboard.ca

© The Conference Board of Canada and the torch logo are registered trademarks of The Conference Board, Inc. Forecasts and research often involve numerous assumptions and data sources, and are subject to inherent risks and uncertainties. This information is not intended as specific investment, accounting, legal, or tax advice. The findings and conclusions of this report do not necessarily reflect the views of the external reviewers, advisors, or investors. Any errors or omissions in fact or interpretation remain the sole responsibility of the Conference Board of Canada.