CANADA A LEADER IN ONLINE, OPEN AND FLEXIBLE LEARNING

Briefing by Contact North I Contact Nord

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DR. BONGINKOSI EMMANUEL NZIMANDE
Canada has an established leadership role in open, distance and flexible higher education:

- **Desire2Learn** and **Blackboard/WebCT** were both developed in Canada – Desire2Learn has its headquarters in Ontario.

- **Smart Boards™** – now present in classrooms around the world – were pioneered and developed by a Canadian company.

- **Massive Open Online Courses (MOOCs)** began in Canada with the work of Stephen Downes and George Siemens at the University of Manitoba in 2008. Both the University of British Columbia and the University of Toronto were amongst the first institutions to offer MOOCs through Coursera and several Canadian institutions are founding members of OERu.

- **The International Council for Open and Distance Education (ICDE)** was founded in 1938 in Canada as the International Council for Correspondence Education. The first World Conference was held in Victoria, British Columbia, Canada, in the same year providing the first forum in the world where distance education institutions and professionals could meet, learn from one another and enter into partnerships. The organization underwent a name change to the International Council for Open and Distance Education in 1982.

- **Athabasca University** in the province of Alberta is amongst the leading online / distance education institutions in the world, operating across Canada and fully accredited by the Middle States Higher Education Commission (USA), with lifelong learning, undergraduate and graduate programs. It began operation in 1970 and launched the world’s first fully online MBA program in 1993-1994. A similar institution offering programs in the French language – **Téluq** – also began operating from a base in the province of Québec in 1972.

- **The Canadian Virtual University** is a consortium of online learning degree program providers offering programs to all Canadians.

- Canada is home to the **Commonwealth of Learning** following the endorsement of the original proposal to create this institution at a Commonwealth Summit held in Canada.

- Canadian provinces established coordinating mechanisms for online and distance learning and related infrastructure including **BCcampus**, **e-Campus Alberta**, **e-campus Manitoba**, **e-Campus Ontario**, **OntarioLearn**, **Contact North | Contact Nord**.

- Many institutions in Canada are “dual-mode” institutions offering both online and in class programs. Over the last two years, some traditional campus-based universities also started offering complete undergraduate degree programs fully online. For instance, students can start a Bachelor of Technology Partnership (B.Tech) program in computing at Mohawk College and then transfer to McMaster University to complete the last two years fully online. Similarly, Queens University is offering a fully online B.Tech in mining engineering aimed at working miners across Ontario. Fully distance undergraduate programs though are still quite rare in Canada, with the main providers still being Athabasca University and Téluq. In every province, there is at least one university offering online and distance education.

There are several dual mode institutions with more than 10,000 fully online or distance enrolments in different provinces:

- In **British Columbia**, Simon Fraser University has almost 20,000 distance course enrolments per annum (8% of all enrolments) (SFU, 2015). The University of British Columbia (UBC) has just over 100 distance courses for credit and about 10,000 distance education course enrolments.

- In **Ontario**, at least 15 of the 24 universities offer distance education programs. Laurentian University offers over 350 online and distance courses in both the English and
French languages. Laurentian is the largest bilingual provider of distance education in Canada. The University of Ottawa also offers online and distance programs and courses both in English and French. Other universities in Ontario with sizeable online and distance education programs are Queen's University, the University of Waterloo, the University of Guelph, and Ryerson University.

- The strong college sector in Ontario – there are 24 colleges – are innovative institutions which offer courses from apprenticeship to applied degrees and engage in focused and applied research. Some 200,000 full-time and 300,000 part-time students are enrolled in one of 600 programs available from the 24 colleges. A growing number of college students already hold a first degree from a university.

- Ontario also has five polytechnics (Algonquin College, Conestoga College, George Brown College, Seneca College and Sheridan College), which are also making extensive use of online learning. Algonquin College, for example, leads Canada in the use of e-textbooks and intends to become a fully digital college.

- In Québec, Laval University has a very large francophone distance education program with more blended learning courses in French than any other institution in the world. Laval also has a partnership with the African Virtual University, which uses some of Laval’s courses in francophone African countries.

- In Newfoundland, Memorial University has a very large online program. In the fall of 2013, there were 1,441 students who were distance education only (8%) and 4,161 students (22 per cent) who took at least one distance education course. There were over 17,000 online course enrolments in total. Online enrolments have increased by 50% over 10 years. (Memorial University of Newfoundland, 2014).

- BC British Columbia, Alberta and Saskatchewan have dedicated polytechnic institutions (British Columbia Institute of Technology, Northern Alberta Institute of Technology, Southern Alberta Institute of Technology, and Saskatchewan Polytechnic) who make extensive use of blended and online learning and innovative technologies for teaching.

- Canada’s Western Provinces are developing, by mutual agreement and joint investment, open education resources aimed at lowering the costs of textbooks for students.

- Canada is home to a number of Centres of Excellence in online and distance education and is also home to the most read journal in the field – the International Review of Research in Open and Distance Learning (see here). The National Research Council supports a program focused on developing new software supports for a new Learning Support System.

- Some of the leading thinkers and writers on online and distance learning and open educational resources (OER) work from a base in Canada:
  - Dr. Terry Anderson
  - Dr. Joanne Basque
  - Dr. Tony Bates
  - Dr. Marie Bountrogianni
  - Dr. Marti Cleveland Innes
  - Dr. Alex Couros
  - Stephen Downes
  - Dr. Keith Hampson
  - Robert Martellaci
  - Dr. Rory McGreal
  - Dr. Susan Moisey
  - Dr. Stephen Murgatroyd
• It is estimated, in each year, some 1.3 million post-secondary students registered at a Canadian college or university are enrolled in one or more courses delivered entirely online. A census in 2010 of all its colleges and universities conducted by the Ontario Ministry of Training, Colleges and Universities (Ontario, 2011) found there were 500,000 online course registrations equal to 25,000 full-time equivalent students (11% of all post-secondary registrations). Many colleges and universities report the number of online courses, and student enrolments in fully online programs and courses, has been steadily increasing for the last 15 to 20 years and this trend does not appear to have flattened out. Some provincial governments, such as British Columbia and Ontario, have encouraged the growth of online learning by special funding for the development of new online courses in addition to the annual government operating grants for colleges and universities.

• Contact North | Contact Nord’s portal for faculty and instructors, teachonline.ca, and its newsletter, Online Learning News, is one of the most frequently viewed sites amongst those dedicated to online learning supports for faculty and instructors in the world. teachonline.ca currently is visited by 250,000 individuals from around the world and Online Learning News is read by over 18,000 individuals.
Ontario has one of the highest levels of educational attainment in the world. Nationally, according to Canada’s national statistics agency, Statistics Canada\(^1\), in 2014, 90% of Canadians aged 25 to 64 had completed at least high school, well above the OECD average of 76%. Tertiary education attainment rates in Canada are higher than the OECD average. In 2014, almost two-thirds (65%) of Canadians aged 25 to 64 had completed post-secondary education compared with the OECD average of 41%. The proportion of individuals who had a university degree (bachelor’s, master’s, doctoral or equivalent degree) was 28%. Canada placed around the middle for this measure of educational attainment, ranking 16\(^{th}\) out of 34 OECD countries.

Those obtaining a diploma in other types of post-secondary education, including at the college, trade or vocational level, comprised 37% of Canadians aged 25 to 64. This partly reflects Canada’s extensive network of colleges, a system not seen in most other OECD countries, where the comparable average was 13%.

Ontario and Québec lead Canada in terms of educational attainment: Ontario has 34% of its adult population holding a trade or college certification and 32% holding a degree or qualification from a university.

A systematic expansion of the tertiary system in Ontario has supported these achievements. Ontario experienced a 31% increase in university enrolment (head counts) and a 20% increase in college enrolment (full-time equivalents) between 2002-2003 and 2010-2011, not including international students. The total number of international students studying at the post-secondary level in Ontario in 2010 was 67,495\(^2\).

Ontario, Canada’s most populous province, has 22 public universities, 17 private (mainly religious non-profit) universities, 24 public colleges (21 Colleges of Applied Arts and Technology and three Institutes of Technology and Advanced Learning, which can offer applied bachelor degrees). It also has over 500 private career colleges.

Included amongst its universities are 18 of the top 50 research universities in Canada. Five Ontario universities – University of Toronto (34\(^{th}\)), McMaster University (149\(^{th}\)), University of Waterloo (152\(^{nd}\)), University of Western Ontario (192\(^{nd}\)) and Queen’s University (206\(^{th}\)) – appear on the THES ranking of the best universities in the world.

In every institution in Ontario, and in most across the country, real and significant innovations in teaching and learning are occurring and improving learning outcomes. Ontario, for example, offers over 1,000 fully online programs and 20,000+ online courses - leading Canada in the delivery of online learning. The full inventory of Ontario’s online programs and courses can be found at Contact North | Contact Nord’s portal for students and prospective students at studyonline.ca.

Some programs have “flipped their classrooms” with most content available online and through open educational resources, with class time used for project work, challenge debates and serious activities aimed at applying the “academic” knowledge to a case, problem or real-life situation. Students use their class time with a professor or instructor to explore and apply knowledge; not just regurgitate that knowledge.

Most college and universities classes are blended learning classes – using technology to support learning in class, in between class or instead of class. Some of this blended learning is focused on high level cognitive skills, not just content – the skills of problem-finding and

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solving, the skills of teamwork, communication and challenging established assumptions. Students are learning more than “what they need to know” – they are learning how to work together and apply their knowledge through a growing number of co-op, placement, work experience, field-based study and other forms of work engagement.

More faculty members and instructors and students are engaged in the co-creation of knowledge, in the use of social media for engagement and in the using of multi-media resources for assignments and projects. Students who combine the arts with science or technology are demonstrating the power of cross-disciplinary studies.

Colleges and universities across Canada, but especially in Ontario, are changing much faster than many acknowledge. What is more, they are sharing their innovations and researching their outcomes and impacts, with the help of the Higher Education Quality Council of Ontario and their own organizations. Over 150 examples of these innovative approaches can be found in Contact North | Contact Nord’s Pockets of Innovation Series available at teachonline.ca/pockets.

Indeed, the rate and scale of change in Ontario, especially in terms of online and flexible learning, led the International Council for Open and Distance Education to choose Contact North | Contact Nord as the host and organizer, and TORONTO as host city, for the World Conference on Online Learning – ICDE 2017, the 27th edition of its world conference, in October 2017. The 26th ICDE World Conference was hosted by the University of South Africa in October 2015.