EduConsillium

ONLINE AND DISTANCE EDUCATION CAPACITY
OF CANADIAN UNIVERSITIES

ANALYSIS AND REVIEW

Produced for Global Affairs Canada
Care of Mr. Paul Bailey, Deputy Director, Edu-Canada

December 4, 2015

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Executive summary

In the first decade of the 21st century, many researchers observed a worldwide acceleration in the use of digital learning solutions, with many territories showing more than 30% growth. The goal of this study is to investigate how Canadian universities were using online/distance learning. A 14-page questionnaire was sent to 93 universities across Canada to gather data on six aspects of this practice. Seventy-three responses were obtained from targeted institutions (78.49% of total sample).

From the data gathered, we have Identified the following key elements:
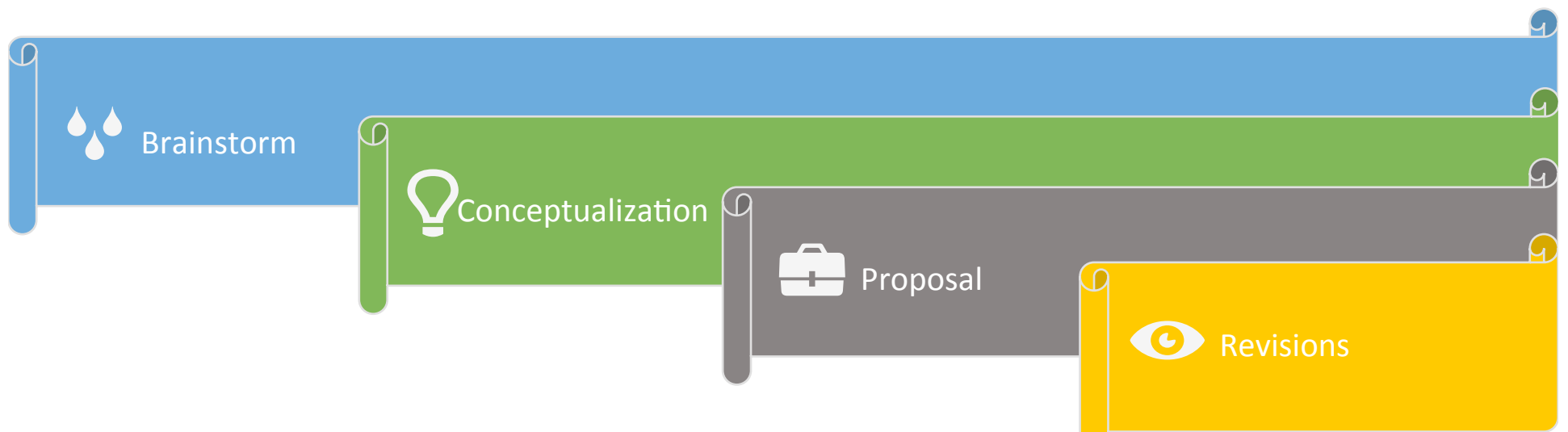
- Currently, 93.15% of Canadian universities offer online courses and programs.

- More than 12,728 online courses are offered (an average of 196.03 online courses per institution).

- More than 809 online programs are offered (an average of 12.31 online programs per institution).

- More than 361,000 students (about 29% of the Canadian university student population) took online courses during the 2014-2015 academic year.

- The online/distance offering is currently 8.32% of the total university course offering.

- About 1,000 courses have been added every year for the past three years.

- It is estimated that 1,100 to 1,400 new online courses will be added in the coming year, increasing the share of online/distance courses offered.

- With an estimated growth rate of about 8.75% for the 2015-2016 academic year, the Canadian online learning offering is fairly close to the worldwide average aggregate growth rate for online learning adoption.

- Only 12.33% of the Canadian universities surveyed mentioned that they currently use some kind of aggregating organization to market or distribute their online courses.

- 34% of respondents did not specifically track whether international students used online courses, and only 28.77% used online learning as a strategic tool to recruit international students.

Canada cannot be considered a leader in this field, as more than 20 countries invest about twice as much each year in their accredited online learning offering. Even if there are a few attempts at organizing the online/distance learning offering in Canada through some type of aggregating organization, this phenomenon seems to be fairly new and not yet well structured.

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Introduction

In the first decade of the 21st century, many researchers observed a worldwide acceleration in the use of digital learning solutions (UNESCO, 2013; ASTD, 2012; Adkins, 2011). The number of educational institutions using online learning and the number of students taking credited online courses has steadily grown over the past nine years, with some years even reaching double-digit growth in many territories (Allen & Seaman, 2014). A 2011 analysis from the Babson Research Group showed that more than 2,500 United States universities and educational institutions were offering online courses. According to a 2011 review of the digital learning market (Adkins, 2011), the online learning market was largely composed of corporate ventures and developing economies. This has changed, as the market is now one of rapid adoption in all segments. The largest growth is still in developing economies (like India and China) in the higher education segment, but the demand for specialized skills has also grown significantly:

- At the University of Phoenix, over 300,000 students were enrolled in online classes in 2014 (Apollo Group, 2015). Even if we consider the end of its U.S. military training contract and a financial scandal that had a major impact on enrollment, the University of Phoenix remains the largest post-secondary institution in the U.S.

- According to the European Association of Distance Teaching Universities, over 500 European institutions provide short courses or entire programs at a distance. Student enrollment in online courses increased by 15-20% in 2012, making online education a serious alternative in Europe.

- The number of U.S. students enrolling in credited online classes and programs has increased five times more than the general enrollment of degree-granting post-secondary institutions. More than 33% of U.S. students enrolled in online learning courses or programs in 2012 (Babson Research Group, 2014).

- The Indira Gandhi National Open University (IGNOU) has dramatically increased enrollment in the past five years. In 2015, IGNOU served over 4.5 million students online (over 3.1 million in India and 1.4 million in 40 other countries). IGNOU is currently the largest online/distance education institution in the world.

In his analysis of the worldwide market for self-paced e-learning, Adkins (2013) reported that the countries with the highest growth rates for digital learning were Vietnam, Malaysia, Romania, Azerbaijan, Thailand, Kenya, Slovakia, the Philippines, India and China. They were all above 30%, which is four times the worldwide aggregate growth rate for online learning adoption. During the same period, there were 17 countries with growth rates above 15%: Indonesia, Nigeria, Qatar, Oman, Poland, Russia, Tunisia, the Czech Republic, Tanzania, Brazil, Colombia, Bolivia, Hungary, Croatia, Bulgaria, Georgia and Ukraine.

Even if there is worldwide growth in the adoption of digital learning solutions, the growth is more important in regions that do not have sufficient "brick and mortar" infrastructure to meet their demand in education (UNESCO, 2012).

The goal of this research is to investigate Canada's use of and capacity in digital and online education.

In this expanding segment of the education market, it is difficult to estimate where the Canadian offering stands, as there has been no systematic review or analysis covering the Canadian offering. There are a few anecdotal studies about the online ventures of some Canadian post-secondary institutions, but no real research looking into the general Canadian offering in online/distance education and the potential strategies used by Canadian institutions. This could become an important issue for the positioning of Canadian education as institutions focus on the lucrative international student market.

Claude Martel, PhD
Project Leader

Research team

Dr. Claude Martel, PhD

Claude is the project leader for this study. He holds a PhD in Educational Technology and has over 25 years of experience in the fields of education, training, public relations and the implementation of cutting-edge technology. He is currently a professor in the Department of Educational Technology at Concordia University.

Claude has also held senior management roles (director, VP and chief learning officer) in large organizations like BigKnowledge, Telus, Hydro-Québec and Pratt & Whitney Canada. He acted as program manager for ICAO and ACI (Airports Council International), where he developed and managed the first global accreditation management program for airport managers (www.iap.aero).

In addition, he is recognized as a world-class consultant, manager and educator. He has managed over 60 projects and implemented educational technology solutions in over 30 large organizations and agencies internationally.

Dr. Daniel Dupont, PhD

Daniel is a former professor at Université de Montréal. He possesses a wealth of experience in change management, and in implementing and managing training/education solutions aimed at improving performance. As a well-established executive, practitioner and educator in the Canadian training/ education community, he has been at the forefront of the development of human performance technology in large national organizations and multiple educational institutions.

Daniel's areas of expertise are organizational architecture, competency development, program design and development, training and management needs assessment, optimizing learning through innovation, and determining performance indicators, measures and ROI, as well as guiding senior management in identifying the integration elements of company-wide learning systems.

Jocelyne Bédard, MA

Jocelyne is a recent graduate of the master's program in Educational Technology at Concordia University. She is an experienced project manager, e-communications specialist and designer.

Jocelyne is a proponent of collaborative practices, accessibility, usability and sustainability. Areas of expertise include e-communications, graphic design, web design and development, instructional design, educational technology, human performance technology, e-learning, mentoring/coaching, business process improvement and lean leadership.

CHAPTER 2
METHODOLOGY

This chapter explains the research methods used in conducting the study:

- Production of the questionnaire

- First contact and identification of key resource persons

- Data-gathering approach and follow-ups

- Data compilation

Methodology

This study was a fairly straightforward venture and aimed to create a baseline study that will provide a first portrait of the Canadian online learning offering in Canadian universities. The results of this study will help track the progress of our institutions against other countries in the online/distance education market.

One of the key objectives of this study was to gather general information about the state of online/distance learning in Canadian universities.

Production of the questionnaire

The research team produced a questionnaire that would serve to gather data related to the main variable, with the intent of providing baseline information for future comparative studies. The goal was to gather a broad range of information about the online/distance offering. A first draft of the questionnaire was created in early June 2015 and revised by the staff of Global Affairs Canada later that month.

First contact and identification of key resource persons

A preliminary list of 106 institutions was produced. All institutions were contacted by phone to identify:

• Whether they delivered university-level courses and programs (bachelor, master or PhD);

• The person(s) in charge of online or distance learning at the institution.

Following this investigation, 13 institutions were removed, as they offered no university-level courses or programs. So the final sample for the study was composed of 93 universities.

Data-gathering approach and follow-ups

To obtain information from the 93 institutions selected, members of the research team performed the following tasks:

• An initial trial of the questionnaire was held with four universities.

- Initial email contact was made in late June with the identified contact person, and a copy of the questionnaire was provided.

- A follow-up email was sent in mid-July with a copy of the questionnaire.

- A follow-up email was sent in early August with a copy of the questionnaire.

- A follow-up phone call to the identified contact person was made at the end of August.

- A follow-up email was sent in early September with a copy of the questionnaire.

- A follow-up email was sent and a follow-up phone call was made in mid-September to the presidents of the remaining institutions, and a copy of the questionnaire was provided.

- The Global Affairs Canada project manager contacted the presidents of the remaining institutions directly in early October.

A confirmation email was sent to institutions once the questionnaire had been completed.

Data compilation

The following rules were applied to data compilation:

- When data was not provided for a survey question, the item was removed from the analysis and the calculation was done with the remaining data. In these cases, the number of items was also reduced by one, in order not to influence the averages or percentages calculated.

- Raw data is only provided in this report when it was useful in explaining the phenomena in question, otherwise averages and percentages are provided.

- Information specific to an institution will not be disclosed to protect the confidentiality requested by certain institutions.

PARTICIPANTS

This chapter provides the following information about survey participants:

- Participating universities by province and territory

- Universities that declined

- Validity of the sample
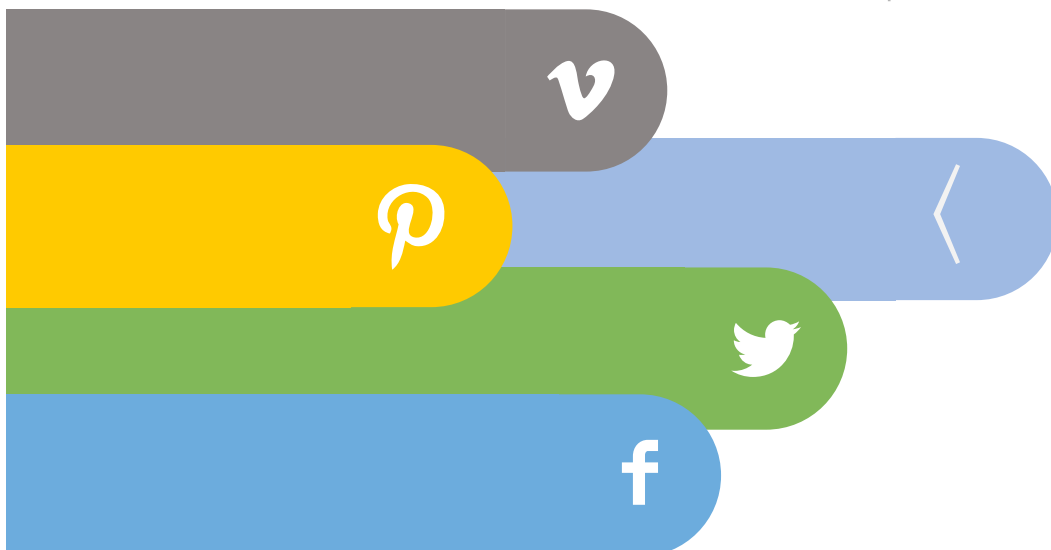
Participants

Alberta
Athabasca University
MacEwan University
University of Lethbridge

British Columbia
University of British Columbia
Royal Roads University
University of Victoria
Simon Fraser University
University of Northern British Columbia
Vancouver Island University
Thompson Rivers University
Trinity Western University
Emily Carr University

Manitoba
Brandon University
Canadian Mennonite University
University of Manitoba
Université de Saint-Boniface
eCampus Manitoba

New Brunswick
Yorkville University
Université de Moncton
University of New Brunswick
St. Thomas University

Newfoundland and Labrador
Memorial University of Newfoundland

Nova Scotia
Cape Breton University
Dalhousie University
University of King's College
St. Francis Xavier University
Mount Saint Vincent University
Saint Mary's University
Acadia University
Université Sainte-Anne

Ontario
Université de Hearst
OCAD University
Brock University
Laurentian University

Ontario (continued)
Nipissing University
Queen's University
Ryerson University
York University
Algoma University
Dominican University College
McMaster University
Université Saint-Paul University
Carleton University
University of Guelph
University of Toronto
University of Windsor
Wilfrid Laurier University
Lakehead University
University of Sudbury
University of Ottawa
Trent University

Quebec
Bishop's University
Concordia University
McGill University
TÉLUQ

HEC Montréal
Institut national de la recherche scientifique (INRS)
École nationale d'administration publique (ENAP)
École de technologie supérieure (ÉTS)
Polytechnique Montréal
Université de Montréal
Université Laval
Université de Sherbrooke
Université du Québec en Abitibi-Témiscamingue
Université du Québec à Trois-Rivières
Université du Québec à Chicoutimi
Université du Québec en Outaouais
Université du Québec à Rimouski

Prince Edward Island
University of Prince Edward Island

Saskatchewan
University of Regina
Saskatchewan Polytechnic

Nunavut, Northwest Territories and Yukon
Aurora College
Nunavut Arctic College

The following 19 institutions either declined to participate or did not respond to the questionnaire:

Nova Scotia College of Art and Design
Mount Allison University
University of Fredericton
Université du Québec à Montréal
Redeemer University College
Royal Military College of Canada
University of Ontario Institute of Technology
University of Waterloo
Western University
Kwantlen Polytechnic University
Concordia University College of Alberta
Mount Royal University
University of Alberta
eCampus Alberta
University of Calgary
University of Saskatchewan
University of Winnipeg
Yukon College
Canadian Virtual University

Validity of the sample

This study obtained 73 responses from targeted institutions (78.49% of total sample) and one response from an aggregating institution (eCampus Manitoba). At the Canadian level, the number of responses was greater than first expected and fulfills the general requirement of validity.

At the provincial and territorial level, the response per province ranged from good to satisfactory, as over 50% of all selected institutions provided responses to the questionnaire.

CHAPTER 4
DATA SEGMENTATION

This chapter provides details about the three types of segmentation applied to survey data:

- Segmentation by province and territory

- Segmentation by the size of the institution

- Segmentation based on linguistic factors

Data segmentation

Segmentation was applied during data analysis, allowing researchers to probe more deeply into the information gathered.

Not all segmentation was applied to all research questions, however. Segmentation was used only when it was significant to the achievement of study goals and provided the most pertinent information and results. The final segmentation was finalized and selectively applied in consultation with Global Affairs Canada.

Segmentation by province and territory

Since education is a provincial and territorial responsibility, we believe that looking at this segmentation may provide useful insight into the regional use of online/distance learning. Data was segmented as follows:

* All Canadian provinces and territories together;

* Each of the 10 provinces;

* The three territories.

Segmentation by the size of the institution

We believe that the size of the institution may have an impact on the adoption of online education. Data related to some questions was segmented and filtered according to the number of students registered in the institution:

* ≤ 10,000 students;

* > 10,000 and ≤ 20,000 students;

* > 20,000 and ≤ 30,000 students;

* > 30,000 students.

Segmentation based on linguistic factors

The official language used by the university may influence the adoption of online education. Data related to some questions was filtered using one or both of the official languages:

* French universities;

* English universities;

* Bilingual universities.

RESULTS OF THE STUDY

This chapter summarizes the results of the study by topic and groups them according to the size of the universities.

The following sections review some of the critical aspects of the online/distance learning offering and its planned development by Canadian universities:

5.1. Description of the online/distance learning offering

5.2. Strategic use of online/distance learning by the institution

5.3. Development and delivery of online/distance learning

5.4. Technological choices made by the institution

5.5. Financial implications of online/distance learning

5.6. Planned development of the online/distance learning offering

5.1. DESCRIPTION OF THE ONLINE/DISTANCE LEARNING OFFERING

This section reviews the various aspects of the online/distance learning offering in Canadian universities, as well as how it may vary in different jurisdictions and according to the size of the institution.

Topics covered

a) Number of universities offering online/distance learning;

b) Total number of credited online/distance learning courses offered at each of the undergraduate, graduate and non-credited (professional or executive) levels;

c) Total number of credited online/distance learning programs offered at each of the undergraduate and graduate levels;

d) Total number of credited online/distance learning programs offered at the professional and executive levels;

e) Number and percentage of additional online/distance learning courses to be added next year;

f) Number and percentage of students registered in online/distance learning courses or programs;

g) Number and percentage of international students taking online/distance learning courses or programs at Canadian universities;

h) Class-scheduling format used for online/distance learning;

i) Registration approach to online/distance learning;

j) Average number of online/distance learning courses added in the previous three years.

NUMBER OF UNIVERSITIES OFFERING ONLINE/DISTANCE LEARNING

5.1.a.

CANADA

# of Respondents	% Offering Online Learning
73	93.15

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
# of Respondents	36	13	10	14
% of Institutions Offering Online Learning	88	100	100	100

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
% of Institutions Offering Online Learning	100	100	100	75	100	100	100	100	82.35	100	50

Comments

- There seems to be a general adoption of online/distance learning across Canada (93.15% of all responding institutions).

- Geographically, all provinces have a high level of adoption across their institutions.

- The data suggests that institutions in the three territories (Nunavut, Northwest Territories and Yukon) may be in the early stages of online/distance learning adoption.

- Institutions that do not offer online/distance learning are in the small institution segment (< 10,000 students).

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TOTAL NUMBER OF CREDITED ONLINE/DISTANCE LEARNING COURSES OFFERED AT EACH OF THE UNDERGRADUATE, GRADUATE AND NON-CREDITED (PROFESSIONAL OR EXECUTIVE) LEVELS

5.1.b.

CANADA

	Number of Online Courses	Average per Institution	% by Category
Undergraduate	8,623	130.65	67.74
Graduate	2,685	41.31	21.09
Non-credited	1,420	24.07	11.15
Total	12,728	196.03	**100**

12,728

Online/Distance Learning Courses Offered in Canada

67.74

% of Online/Distance Learning Courses Offered at the Undergraduate Level
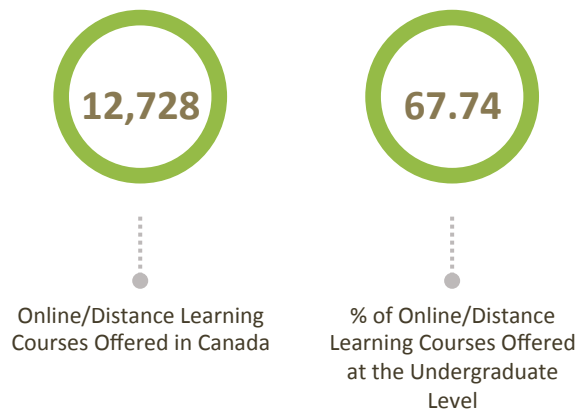
Comments

- Canada currently offers 12,728 online/distance learning courses, mainly at the undergraduate level (67.74%). Graduate courses account for only 21.09% of the offering.

- Canadian universities offered an average of 196.03 online courses last year.

- Four provinces' numbers are much higher than the national average (Alberta, British Columbia, Newfoundland/Labrador and Saskatchewan), with two offering double the national average.

- Not surprisingly, the number of courses increases with the size of the institutions, but institutions of 20,000 to 30,000 students invest significantly more in online/distance learning than other segments.

- The investment level in both English and French universities is fairly high, but bilingual institutions seem to lag behind, with less than half the offering of unilingual universities.

AVERAGE NUMBER OF CREDITED ONLINE/DISTANCE LEARNING COURSES OFFERED AT EACH OF THE UNDERGRADUATE, GRADUATE AND NON-CREDITED (PROFESSIONAL) LEVELS

5.1.b.

BY LINGUISTIC FACTOR

	Per English Institution	Per Bilingual Institution	Per French Institution
Undergraduate (Average)	146	37	114
Graduate (Average)	40	13	54
Non-credited (Average)	28	35	8

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Undergraduate (Average)	62.6	143	302.56	192.25
Graduate (Average)	27	50	62.89	59.42
Non-credited (Average)	13	26	20.38	72.63

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Undergraduate (Average)	332	211.13	57	72.67	250	100.75	106.91	48	119.77	236	7
Graduate (Average)	74.67	89.88	19.25	41.67	200	34.57	16.38	16	50.93	12.5	0
Non-credited (Average)	25.5	10	25.5	22.33	0	15.71	47.22	3	11.69	7.5	0

TOTAL NUMBER OF CREDITED ONLINE/DISTANCE LEARNING PROGRAMS OFFERED AT EACH OF THE UNDERGRADUATE AND GRADUATE LEVELS

5.1.c.

CANADA

	Number of Online Programs	Average per Institution	% at the Different Levels
Undergraduate	587	8.89	72.55
Graduate	222	3.42	27.45
Total	809	12.31	**100**

809

Online/Distance Learning Programs Offered in Canada

72.55

% of Online/Distance Learning Programs Offered at the Undergraduate Level
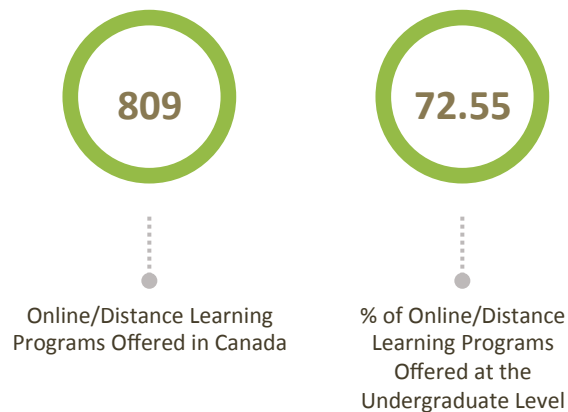
Comments

- Most of the online/distance learning programs are currently offered at the undergraduate level (72.55%).

- Four provinces offer more online/distance programs than the Canadian average (Alberta, British Columbia, Newfoundland/Labrador and Quebec).

- These numbers might be influenced by provinces that have a fair number of larger universities that offer only online programs (e.g. Athabasca, Royal Roads, TÉLUQ).

- The size of the institution clearly influences the number of online programs offered, but institutions of 20,000 to 30,000 students invest significantly more in online/distance learning than other segments.

- On average, French universities offer significantly more online/distance programs at the undergraduate and graduate levels than do English universities (31.30% more).

- Bilingual institutions lag behind, with 20% fewer online/distance programs than unilingual institutions.

AVERAGE NUMBER OF CREDITED ONLINE/DISTANCE LEARNING PROGRAMS OFFERED AT EACH OF THE UNDERGRADUATE AND GRADUATE LEVELS

5.1.c.

BY LINGUISTIC FACTOR

	Per English Institution	Per Bilingual Institution	Per French Institution
Undergraduate (Average)	9	5	11
Graduate (Average)	3	1	6
Total Average	**12**	**6**	**17**

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Undergraduate (Average)	3	10	26	12.45
Graduate (Average)	2	4	4.67	7.73
Total Average	**5**	**14**	**30.67**	**20.18**

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Undergraduate (Average)	41.33	12.75	1.25	5	8	3.5	4.76	0	11.07	25	0
Graduate (Average)	8	4.38	1.5	2.33	13	2.5	0.85	1	6.36	5	0
Total Average	**49.33**	**17.13**	**2.75**	**7.33**	**21**	**6**	**5.61**	**1**	**17.43**	**30**	**0**

TOTAL NUMBER OF CREDITED ONLINE/DISTANCE LEARNING PROGRAMS OFFERED AT THE PROFESSIONAL AND EXECUTIVE LEVELS

5.1.d.

CANADA

Number of Programs	Average per Institution
225	3.95

BY LINGUISTIC FACTOR

	Per English Institution	Per Bilingual Institution	Per French Institution
Average	3	0.33	9

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Average	1	10	8	4.25

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Average per Institution	5	2.38	9.33	3.33	0	0.33	2.19	0	9.31	0	0

Comments

- Canadian universities offer an average of 3.95 professional or executive online/distance programs.

- Three provinces offer significantly more professional or executive online/distance programs (Alberta, Manitoba and Quebec).

- Mid-sized universities (between 10,000 and 30,000 students) account for 77.42% of the professional or executive online programs.

- On average, French universities offer significantly more online/distance programs at the professional and executive levels than do English universities (50% more).

- Bilingual institutions lag way behind, with a very small part of the market (less than 3%).

NUMBER AND PERCENTAGE OF ADDITIONAL ONLINE/DISTANCE LEARNING COURSES TO BE ADDED NEXT YEAR

5.1.e.

CANADA

Number of Additional Courses	Average Number of Additional Courses per Institution	% Increase over Existing Online Offering per Institution
824	15.26	6.47

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Average per Institution	9.5	24.2	18.88	25.38

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Average per Institution	17	8	9.67	16	70	9.43	13.72	0	17.64	34.5	10

Comments

- Canadian universities offering online/distance courses will add an average of 15.26 courses in 2015-2016.

- This will increase the total online offering by 6.47%.

- Five provinces will add more new online/distance courses than the national average (Alberta, New Brunswick, Newfoundland/Labrador, Quebec and Saskatchewan).

- The large number of courses added by Newfoundland/Labrador in 2015-2016 will inflate the national average.

- Only the smaller university segment (fewer than 10,000 students) is below the national average, with an average of 9.5 new courses next year.

TOTAL NUMBER OF **STUDENTS REGISTERED IN ONLINE/DISTANCE LEARNING COURSES OR PROGRAMS**

5.1.f.

CANADA

Number of Students Registered in Online Courses	Average Number of Students Registered in Online Courses per Institution	% of Students Registered in Online Courses out of Total Student Enrollment
361,385	5,924.34	29.06

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Average Number of Students per Institution	1,287.96	6,956.58	10,274	13,813.82
% of Total Students	20.67	41.81	40.30	23.29

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Average Number of Students per Institution	10,846.67	5,980.83	1,417	1,994.33	5,870	2,335.14	6,908.26	1,320	6,269.53	3,692	150
% of Total Students	62.21	17.51	13.49	27.54	31.87	36.78	29.53	29.98	32.54	18.03	13.04

Comments

- Over 361,000 students took online/distance courses last year in the 73 universities of the sample, which represents 29.06% of their enrollment.

- Only four provinces had over 30% of their students enrolled in online/distance courses (Alberta, Nova Scotia, Newfoundland/Labrador and Quebec).

- Alberta clearly leads in this area with 62.21%.

- Mid-sized universities (from 10,000 to 30,000 students) have about twice as many students taking online courses.

NUMBER AND PERCENTAGE OF INTERNATIONAL STUDENTS TAKING ONLINE/DISTANCE LEARNING COURSES OR PROGRAMS AT CANADIAN UNIVERSITIES

5.1.g.

CANADA

Average Number of International Students Taking Online Courses per Institution	% of Total International Students
360.17	10.61

BY SIZE OF THE INSTITUTION (number of students)

	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
Average Number of International Students Taking Online Courses per Institution	89.53	259.75	1,009.33	730.14
% of Total International Students	9.51	11.74	23.75	6.39

PROVINCES AND TERRITORIES

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
Average Number of International Students Taking Online Courses per Institution	426	592.4	1,159	91.33	75	195.4	311.46	142	300.33	78.5	0
% of Total International Students	31.50	14.82	77.56	13.71	3.53	15.85	7.89	20.73	3.79	1.29	0

Comments

- International students in this study are defined as students travelling to Canada to study in our universities, as well as international students taking online programs from abroad.
- It should be noted that 34% of respondents did not have data on this topic.
- No comments were provided regarding the strategic use of online/distance learning in relation to international students.

- Only 10.61% of international students were registered in at least one online course.
- Twice as many international students at universities with 20,000 to 30,000 students have taken online courses (23.75%).

CLASS-SCHEDULING FORMAT USED FOR ONLINE/DISTANCE LEARNING

5.1.h.

%	Class-scheduling Format
75.34	Follow the institution's regular course calendar.
6.35	Offer an on-demand format wherein students can register and take courses when they want.
23.29	Use a mix of class schedules (some following the course calendar and some on demand) depending on the situation.
12.33	Other formats (comments from the institutions) • For some external contracts, we use alternate registration. • Some of our programs do not follow the regular course calendar. • There are special courses that are not on the regular schedule, but are not on demand. • Some courses follow the semester format, some overlap semesters, some are on demand. • We have one online undergraduate course where students can register at the start of each month. • Our graduate online/hybrid programs have start dates prior to the regular semester. • A limited number of courses at the undergraduate level are primarily in an on-demand format. • Four sessions per year for AQ (Additional Qualification) courses are off scheduling. • MOOCs are on demand, but all other credited courses, including online courses, follow the calendar.

Comments

- Most universities (75.34% of sample) use the regular university calendar to schedule online/distance courses and programs.

- Less than a quarter (23.29%) of universities use a mix of on-demand scheduling and the normal course calendar.

- For all others, scheduling depends on specific program requirements. Only 12.33% mentioned having such special programs.

REGISTRATION APPROACH TO ONLINE/DISTANCE LEARNING

5.1.i.

%	Registration Approach
87.67	Use the same process and tools as classroom-based course registration.
20.55	Use a separate portal for online/distance courses and programs.
23.29	Offer online courses and programs through a third party within the institution (e.g. Continuing Education).
12.33	Offer online/distance courses and programs through a third party outside the institution (e.g. resellers, eCampus, Massive Open Online Courses or other institutions).
9.59	Other approaches (comments from the institutions) • There are various methods of registration. • Contracted professional sections may have students register through employer. • The Extension has its own portal to register students. • High school students can take certain courses and must register online. • Online courses are taken by on-campus students as well as distance students. New distance students are admitted using an application process that differs from the on-campus admission process. • New "splash page" created to encourage registration for online courses (but it is still the same registration process). • While we have a MOOC service (Open Education by Blackboard), it is not a commercial provider. • In Contact North's portal and the new eCampus Ontario portal, they use their own enrollment process. • Payment can be done on the online portal site. • The registration system varies according to the academic status of the course (credit or non-credit) rather than the mode of delivery. • For professional development, a third-party portal is used.

Comments

- 87.67% of universities use the same portal and tool to process both classroom-based and online/distance course registration.

- Roughly 9% to 23% of universities use another portal or tool to carry out registration for some or all of their online/distance courses and programs.

- Only 12.33% of universities surveyed mentioned using a portal from an external third party (resellers, eCampus, Massive Open Online Courses or other institutions).

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AVERAGE NUMBER OF ONLINE/DISTANCE LEARNING COURSES ADDED IN THE PREVIOUS THREE YEARS

5.1.j.

CANADA

Average per institution	TOTAL Courses Added	Average per Institution
3 Years Ago	929	17.53
2 Years Ago	1,056	18.53
Last Year	1,077	18.89

BY SIZE OF THE INSTITUTION (number of students)

Average per Institution	≤ 10,000 Students	> 10,000 and ≤ 20,000 Students	> 20,000 and ≤ 30,000 Students	> 30,000 Students
3 Years Ago	12.13	18.9	18.44	26.25
2 Years Ago	14.63	19	19.11	28.25
Last Year	12.88	21.4	25.11	28.15
Total over 3 Years	39.64	59.3	62.66	82.65

PROVINCES AND TERRITORIES

Average per Institution	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
3 Years Ago	18	24.50	10	21	50	9.29	16.38	26	18.58	20	0
2 Years Ago	6.33	32.67	9.50	15	35	11	17.17	17	22.83	20.50	5
Last Tear	14	23.83	7.5	8.33	22	11.29	19.83	21	24.25	32.5	2
Total over 3 Years	38.33	81	27	44.33	107	31.58	53.38	64	65.66	73	7

Comments

- Sixteen institutions (21.9%) did not provide data for this topic.
- Canadian universities have added an average of 17 to 19 new courses in each of the past three years.
- Universities in five provinces have invested more than the Canadian average (British Columbia, Newfoundland/ Labrador, Prince Edward Island, Quebec and Saskatchewan).
- The capacity to produce online/distance courses seems to go hand in hand with the size of the institution (larger institutions having a proportionally larger capacity to produce online courses than smaller ones).

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5.2. STRATEGIC USE OF ONLINE/DISTANCE LEARNING BY THE INSTITUTION

This section reviews the different aspects of the strategic use of online/distance learning by the institution.

Topics covered

a) Use of online/distance learning to reach strategic goals;

b) Integration of online/distance learning offerings.

USE OF ONLINE/DISTANCE LEARNING TO REACH STRATEGIC GOALS

5.2.a.

	To Increase Registration Without Adding Infrastructure Costs	To Attract Students from Regions or Provinces Further Away from Institutions	To Attract International Students
	% of Institutions	% of Institutions	% of Institutions
All of Canada	68.49	76.71	53.42
By size of the institution			
≤ 10,000 students	62.5	72.5	50
> 10,000 and ≤ 20,000 students	83	83	58
> 20,000 and ≤ 30,000 students	77.78	77.78	44.44
> 30,000 students	66.67	83.33	66.67

Comments

- Most institutions use online courses to increase registration without increasing infrastructure costs.

- Only about 50% of institutions use online/ distance learning as a strategy to attract international students.

- Although 45% of respondents mentioned other strategies, very few comments were pertinent. Five respondents mentioned using MOOCs as a university promotion strategy.

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INTEGRATION OF ONLINE/DISTANCE LEARNING OFFERINGS

5.2.b.

	Online/Distance Courses Totally Integrated into Every Program	Online/Distance Courses Totally Integrated into Some Programs	Online/Distance Courses Managed by Independent or Separate Organization(s)	Some Courses Offered to Both Internal Students and Outside Resellers	Courses Specifically Offered to Potential International Students
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	19.18	65.75	6.85	6.85	5.48
By size of the institution					
≤ 10,000 students	17.5	57.5	5	0	2.5
> 10,000 and ≤ 20,000 students	25	75	0	17	0
> 20,000 and ≤ 30,000 students	22.22	77.78	33.33	22	11.11
> 30,000 students	16.67	75	0	8.33	16.67

Comments

- Most universities have integrated some online/distance courses into some programs (65.75%).

- Only about 19% of institutions have courses integrated into all programs.

- Roughly 7% of universities have their online courses managed by an independent or separate organization (e.g. MOOC).

- 19.18% mentioned that they use specialized services or external portals for professional, high school, contractual or qualification courses.

- Universities do not systematically use online courses to recruit international students (5.48% across Canada).

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5.3. DEVELOPMENT AND DELIVERY OF ONLINE/DISTANCE LEARNING

This section reviews the different aspects of the development and delivery of online/distance learning.

Topics covered

a) Responsibility for online learning development and standards;

b) Instructional strategies used in online/distance course development;

c) Most-used types of delivery approaches.

RESPONSIBILITY FOR ONLINE LEARNING DEVELOPMENT AND STANDARDS

5.3.a.

	Central Group or Department	Each Faculty or Department Responsible for Development and Standards	Individual Professors Responsible for Development and Standards	Other Approach
	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	61.64	43.84	31.51	24.66
By size of the institution				
≤ 10,000 students	47.5	32.5	3.5	22.5
> 10,000 and ≤ 20,000 students	83.33	58.33	50	25
> 20,000 and ≤ 30,000 students	77.78	55.56	22.22	33.33
> 30,000 students	75	58.33	16.67	25

Comments

- Most universities assign responsibility for online learning development to more than one entity/person.

- Most universities across Canada have a dedicated group responsible for development standards (61.64%).

- A fewer number of universities (43.84%) rely on faculties or departments to produce development standards.

- A smaller group (31.51%) of universities have their professors define development standards.

- Larger universities (> 10,000 students) tend to have a central group that defines development standards.

- Because some institutions redistribute some of their online courses on other platforms (eCampus Manitoba and eCampus Alberta, for example) or through other universities and MOOCs, they must then apply the standards of the redistributing organization.

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INSTRUCTIONAL STRATEGIES USED IN ONLINE/DISTANCE COURSE DEVELOPMENT

5.3.b.

	Direct Instruction: Basic e-Learning (Texts, Images and Testing)	Direct Instruction: Interactive e-Learning (Texts, Images, Interactivity and Testing)	Direct Instruction: Instructor-led in Virtual Classrooms	Interactive Instruction: Case-based / Problem-based Learning	Interactive Instruction: Simulation	Blended Approaches	Online Coaching
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	72.6	83.56	68.49	75.34	47.95	79.45	44.63
By size of the institution							
≤ 10,000 students	62.5	75	65	65	30	72.5	30
> 10,000 and ≤ 20,000 students	100	100	66.67	100	91.67	83.33	50
> 20,000 and ≤ 30,000 students	66.67	77.78	44.44	77.78	33.33	77.78	44.44
> 30,000 students	83.33	100	100	83.33	75	100	58.33

Comments

- The majority of respondents mention using some type of direct instructional approach.

- While 83.56% of respondents mention using interactive e-learning, most of them mention using many if not most of the instructional strategies presented.

- Only simulations and online coaching were mentioned less than 50% of the time by respondents.

- Only 10.96% of respondents mention using other approaches like mobile learning and the flipped classroom.

MOST-USED TYPES OF DELIVERY APPROACHES

5.3.c.

	Teacher-led Online Courses (Virtual Classes)	Autonomous (Computer-led) Online Learning	Class Capture and Delayed Redelivery of Courses	Blended Approaches	Community of Practice	Resources / Student-driven Approaches (Like MOOCs)
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	72.6	47.95	27.4	65.75	24.66	16.44
By size of the institution						
≤ 10,000 students	67.5	47.5	25	55	22.5	7.5
> 10,000 and ≤ 20,000 students	83.33	58.33	25	83.33	33.33	25
> 20,000 and ≤ 30,000 students	77.78	55.56	33.33	66.67	33.33	33.33
> 30,000 students	75	33.33	33.33	83.33	16.67	25

Comments

- The majority of institutions use either synchronous tools (72.6%) or blended approaches (65.75%) to deliver their courses.

- Autonomous online learning is used by only 47.95% of universities to deliver online courses.

- Most institutions use teacher-led online classrooms (72.6%) and a blended approach of instructor-led and autonomous e-learning (65.75%).

- Approaches like communities of practice and student-driven approaches (MOOCs) are the least used.

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5.4. TECHNOLOGICAL CHOICES MADE BY THE INSTITUTION

This section reviews the different technological choices made by institutions.

Topics covered

a) Institutions using a Learning Management System (LMS);

b) Institutions that plan to change their current LMS in the near future;

c) Types of technological resources most used to develop online/distance material.

INSTITUTIONS USING A LEARNING MANAGEMENT SYSTEM (LMS)

5.4.a.

	Use a Learning Management System (LMS)
	% Yes
All of Canada	91.78
By size of the institution	
≤ 10,000 students	85
> 10,000 and ≤ 20,000 students	100
> 20,000 and ≤ 30,000 students	100
> 30,000 students	100

Comments

- Almost all universities use some type of Learning Management System.

- Only 15% of smaller universities (under 10,000 students) mention not having an LMS.

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INSTITUTIONS THAT PLAN TO CHANGE THEIR CURRENT LMS IN THE NEAR FUTURE

5.4.b.

	Plan to Change Current LMS in the Near Future	
	% Yes	**% No**
All of Canada	16.67	83.33
By size of the institution		
≤ 10,000 students	9.09	90.91
> 10,000 and ≤ 20,000 students	8.33	91.67
> 20,000 and ≤ 30,000 students	33.33	66.67
> 30,000 students	33.33	66.67

Comments

- The majority of universities (83.33%) do not plan to change their LMS in the near future.

- A third of larger universities (more than 20,000 students) plan to change their LMS in the near future.

TYPES OF TECHNOLOGICAL RESOURCES MOST USED
TO DEVELOP ONLINE/DISTANCE MATERIAL

5.4.c.

	Industry-recognized Authoring Tools (Articulate, Captivate)	Locally or Internally Produced Authoring Tools	Virtual Classroom Tools (WebEx, Connect)	Separate Questionnaire/ Exam and Other Testing Tools	Learning Content Management System (LCMS/CMS) Tools	Open Source Tools	Course Production Provided by External or Contractual Resources
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	58.9	36.99	72.6	45.21	72.6	68.49	21.92
By size of the institution							
≤ 10,000 students	40	22.5	62.5	30	60	57.5	22.5
> 10,000 and ≤ 20,000 students	91.67	58.33	91.67	75	75	91.67	25
> 20,000 and ≤ 30,000 students	77.78	33.33	77.78	55.56	100	77.78	11.11
> 30,000 students	75	66.67	83.33	91.67	75	25	16.67

Comments

- The majority of larger institutions (over 10,000 students) mention using recognized authoring tools.

- A large majority of institutions (72.6%) mention using virtual classroom tools.

- 36.99% of universities still use their own authoring tools.

- 72.6% of universities have a content management system (CMS or LCMS).

- Open source is mostly used in small and mid-sized universities (under 30,000 students).

- Course production is provided by external or contractual resources for 21.92% of responding institutions.

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5.5. FINANCIAL IMPLICATIONS OF ONLINE/DISTANCE LEARNING

This section reviews the different financial implications of online/distance learning.

Topics covered

a) Approaches to tuition fees for online/distance courses or programs;

b) Sources of financing for the development of online/ distance courses or programs.

APPROACHES TO TUITION FEES FOR ONLINE/DISTANCE COURSES OR PROGRAMS

5.5.a.

	Charge Same Amount as Classroom-delivered Courses	Fees Are Lower than Normal Fees for Classroom-delivered Courses	Fees Are Higher than Normal Fees for Classroom-delivered Courses	Online Courses Are Free but Students Pay for Certification or Recognized Credits	Some Online Courses Are Free
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	67.12	5.48	21.92	4.11	13.7
By size of the institution					
≤ 10,000 students	55	5	25	0	10
> 10,000 and ≤ 20,000 students	75	16.67	33.33	0	25
> 20,000 and ≤ 30,000 students	66.67	0	22.22	22.22	22.22
> 30,000 students	100	0	0	8.33	8.33

Comments

- The majority of institutions across Canada (67.12%) charge the same tuition fees for traditional courses and online courses.

- All large universities (over 30,000 students) charge the same amount for classroom and online/distance courses.

- 13.7% of institutions mention that some of their online courses are free.

- While 21.92% of all institutions charge a higher amount for online/distance courses, these are only institutions under 30,000 students.

- Some universities commented that they add an online or technological fee on top of the tuition cost.

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SOURCES OF FINANCING FOR THE DEVELOPMENT OF ONLINE/DISTANCE COURSES OR PROGRAMS

5.5.b.

	Financed by Overall University Budget	Financed by Departmental or Faculty Budget	Courses/Programs Must Use a Cost-Recovery Financial Model (from Fees)	External Sponsors or Clients Finance Online/Distance Courses/Programs	Other
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	71.23	36.99	21.92	17.81	16.44
By size of the institution					
≤ 10,000 students	70	22.5	15	10	10
> 10,000 and ≤ 20,000 students	91.67	50	16.67	25	25
> 20,000 and ≤ 30,000 students	55.56	44.44	66.67	33.33	22.22
> 30,000 students	66.67	66.67	16.67	25	25

Comments

- The majority of institutions (71.23%) mention that online learning is financed through a central university budget.

- 36.99% of institutions say that financing is at the department or faculty level.

- About 20% mention using a cost-recovery or external financing model.

- 16.44% mention other potential sources of financing that include government grants, private financing or international projects.

5.6. PLANNED DEVELOPMENT OF THE ONLINE/DISTANCE LEARNING OFFERING

This section reviews the planned development of the online/distance learning offering.

Topics covered

a) Plan to enhance the online/distance learning offering from 2016 to 2018;

b) Method to enhance the online/distance learning offering from 2016 to 2018;

c) Measure of success or performance of the online/ distance learning offering.

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PLAN TO ENHANCE THE ONLINE/DISTANCE LEARNING OFFERING FROM 2016 TO 2018

5.6.a.

	2016-2017	2017-2018
	Intend to Increase the Number of Online/Distance Courses	Intend to Increase the Number of Online/Distance Courses
	% of Institutions	% of Institutions
All of Canada	52.05	43.84
By size of the institution		
≤ 10,000 students	52.5	45
> 10,000 and ≤ 20,000 students	58.33	58.33
> 20,000 and ≤ 30,000 students	33.33	33.33
> 30,000 students	58.33	33.33

	2016-2017	2017-2018
	Intend to Increase the Number of Online/Distance Courses by	Intend to Increase the Number of Online/Distance Courses by
	Average Number of Courses	Average Number of Courses
All of Canada	16.61	16.71
By size of the institution		
≤ 10,000 students	10.14	11
> 10,000 and ≤ 20,000 students	18.75	19.29
> 20,000 and ≤ 30,000 students	36.5	21.25
> 30,000 students	27	24.17

Comments

- Over 50% of respondents have already planned to increase the number of online/distance courses during the 2016-2018 period.

- These universities plan to add an average of 16.61 new courses in 2016-2017 and 16.71 in 2017-2018.

- Larger universities (over 20,000 students) plan to invest more in the development of online courses than the Canadian average.

METHOD TO ENHANCE THE ONLINE/DISTANCE LEARNING OFFERING FROM 2016 TO 2018

5.6.b.

	Bring Online/Distance Courses to New Markets or Clienteles	Join Course Aggregator (MOOCs, Provincial Portal)	Enter into Bilateral National or International Agreements
	% of Institutions	% of Institutions	% of Institutions
All of Canada	41.1	19.18	12.33
By size of the institution			
≤ 10,000 students	32.5	15	12.05
> 10,000 and ≤ 20,000 students	66.67	33.33	16.67
> 20,000 and ≤ 30,000 students	33.33	11.11	0
> 30,000 students	50	25	16.67

Comments

- Roughly 41% of respondents plan to bring their online offering to new markets or clienteles.

- Only 19.18% of respondents plan to join a course aggregator (Massive Open Online Courses, provincial portal).

- Of universities with 10,000 to 20,000 students, 33.33% plan to join a course aggregator.

- 12.33% of respondents are looking for bilateral national or international agreements.

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MEASURE OF SUCCESS OR PERFORMANCE OF THE ONLINE/DISTANCE LEARNING OFFERING

5.6.c.

	Cost Savings	Increased Revenue	Increased Number of Students	Increased Number of International Students	Other
	% of Institutions	% of Institutions	% of Institutions	% of Institutions	% of Institutions
All of Canada	27.4	50.68	78.08	28.77	39.73
By size of the institution					
≤ 10,000 students	22.5	52.5	72.5	25	32.5
> 10,000 and ≤ 20,000 students	41.67	50	100	58.33	66.67
> 20,000 and ≤ 30,000 students	33.33	67.66	88.89	0	33.33
> 30,000 students	25	33.33	66.67	33.33	41.67

Comments

- 78.08% of universities measure the success of online initiatives by the increase in the number of students.

- Of universities with 10,000 to 20,000 students, 58.33% focus on the increase in international students that online learning may provide.

- Half of the respondents are looking at online courses to increase revenues.

- 39.73% of respondents mention other success factors, including student success rate, increased course catalogue and results of student satisfaction surveys.

DISCUSSION
LIMITATIONS
CONCLUSION

Discussion

This study offers a first glimpse of what seems to be a growing offering in the expanding global education market. Online/distance education seems to be moving from a fringe phenomenon to a mainstream phenomenon.

Currently, 93.15% of Canadian universities offer online courses and programs.

The online learning offering of Canadian universities is becoming significant, as it currently provides the following:

- More than 12,728 online courses (an average of 196.03 online courses per institution);*

- More than 809 online programs (an average of 12.31 online programs per institution).*

In the 73 universities surveyed, more than 361,000 students took online courses during the 2014-2015 academic year. This equates to about 29% of the Canadian student population taking at least one online course.*

The online/distance offering is currently 8.32% of the total university course offering. About 1,000 courses have been added every year for the past three years. It is estimated that 1,100 to 1,400 new online courses will be added in the coming year, increasing the share of online/distance courses offered.

The preferred methods for delivering Canadian online courses are either synchronous (virtual classroom) or blended approaches. This is a departure from the corporate model whose approach is dominated by autonomous online learning.

Anecdotally, many of the universities mentioned that they were currently reviewing their strategic use of online/distance learning and may accelerate the use of this approach to grow their student population or to reach new markets.

* These numbers can be considered conservative as this study surveys only 78.49% of Canadian universities.

With an estimated growth rate of about 8.75% for the 2015-2016 academic year, the Canadian online learning offering is fairly close to the worldwide average aggregate growth rate for online learning adoption. This also means that half of the planet is ahead of us in its adoption and production of online learning education.

The growth of the integrated hybrid model (in which a university offers a mix of online courses to both regular on-site and remote students) means that it seems to be becoming a mainstream model, allowing institutions to grow significantly while reducing the impact on infrastructure and opening new markets for their courses and programs.

Even if there are a few attempts at organizing the online/distance learning offering through some type of aggregating organization, this phenomenon seems to be fairly new and not yet well structured.

Limitations

With a 78.49% participation rate by Canadian universities, this study is representative of the Canadian online/distance learning offering, but it still does not describe over 20% of Canadian universities. Further attempts should be made to increase the response from Canadian universities.

In addition, many universities did not track all of the requested data. For instance, 34% of respondents did not specifically track whether international students used online courses. This might skew some of the data, since the results are based on the responses provided by fewer universities.

A lower response rate was provided by some provinces' institutions compared with others, but this was not considered to be critical. This factor would need to be taken into consideration in follow-up or replication studies.

Conclusion

As the global offering in online/distance education steadily grows, it will gradually infringe on the classic "brick and mortar" educational market. More than likely, many of these institutions will cross geographical boundaries and start offering their programs in international markets. The case of Indira Gandhi National Open University (IGNOU), with over 3.1 million students in India but 1.4 million in 40 other countries, is a good example of how the online/distance offering might grow internationally.

Many online institutions will also likely start to invade the lucrative international student market with their online offerings—either as full-fledged competitors to classical programs or at least as marketing tools to recruit and prepare international students for their educational journey abroad.

Each province within Canada is responsible for its own education system. Each university seeks to increase its revenues by increasing enrollment in some way. So the Canadian education system encourages competition between universities and provinces.

To compete with large-scale online universities like IGNOU, Open University of China and the University of Phoenix, Canadian institutions might need to regroup their offerings under one or many aggregating organizations to be more visible in the international market.

Currently, only 12.33% of Canadian universities surveyed mention that they use some kind of aggregating organization to market or distribute their online courses. Aggregation of the online/distance offering at the provincial or national levels may be an interesting way to tackle the aggressive global offering in this area.

Additional raw data

NUMBER OF CREDITED COURSES OFFERED BY THE UNIVERSITIES SURVEYED	NUMBER OF TOTAL STUDENTS AT THE UNIVERSITIES SURVEYED	NUMBER OF CREDITED ONLINE COURSES OFFERED AT THE UNDERGRADUATE LEVEL	NUMBER OF CREDITED ONLINE COURSES OFFERED AT THE GRADUATE LEVEL	NUMBER OF CREDITED ONLINE PROGRAMS OFFERED AT THE UNDERGRADUATE LEVEL	NUMBER OF CREDITED ONLINE PROGRAMS OFFERED AT THE GRADUATE LEVEL
152,814	1,243,513	8,623	2,685	937	222

NUMBER OF STUDENTS WHO ARE REGISTERED FOR ONLINE COURSES, BY PROVINCE (IN THE SAMPLE)

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
TOTAL	32,540	35,885	4,251	5,983	5,870	16,346	145,074	1,320	106,582	7,384	150

NUMBER OF INTERNATIONAL STUDENTS WHO ARE REGISTERED FOR ONLINE COURSES, BY PROVINCE (IN THE SAMPLE)

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
TOTAL	852	2,962	3,477	274	75	977	4,049	142	1,802	157	0

NUMBER OF ONLINE COURSES THAT WERE ADDED OVER THE PAST THREE YEARS, BY PROVINCE (IN THE SAMPLE)

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
TOTAL	115	486	108	112	107	221	928	64	788	126	7

NUMBER OF ONLINE COURSES PLANNED TO BE ADDED OVER THE NEXT THREE YEARS, BY PROVINCE

	AB	BC	MB	NB	NL	NS	ON	PEI	QC	SK	Territories
TOTAL	45	65	33	175	0	177	600	19	510	209	30

NUMBER OF ONLINE COURSES THAT WERE ADDED OVER THE PAST THREE YEARS IN THE UNIVERSITIES SURVEYED	NUMBER OF ONLINE COURSES CURRENTLY PLANNED TO BE ADDED OVER THE NEXT THREE YEARS BY THE UNIVERSITIES SURVEYED
3,062	1,863

Abbreviations used

AB: Alberta

BC: British Columbia

MB: Manitoba

NB: New Brunswick

NL: Newfoundland and Labrador

NS: Nova Scotia

ON: Ontario

PEI: Prince Edward Island

QC: Quebec

SK: Saskatchewan

Territories: Nunavut, Northwest Territories and Yukon

N: Number of participants in this category

%: Percentage of the sample

Average: Average obtained by institution

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