

Digital Learning in Canadian Higher Education in 2020

National Report

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EXECUTIVE SUMMARY

The National Report is informed by the collective results of the research studies conducted by the Canadian Digital Learning Research Association (CDLRA) throughout 2020, namely the Canadian Pulse Project.

The Canadian Pulse Project

The Canadian Pulse Project consisted of two short surveys, one in Spring 2020 and one in Fall 2020, each of which involved an outreach to administrators and faculty at Canadian postsecondary institutions via email mailing lists.

The purpose of these research undertakings was to better understand the impact of the COVID-19 pandemic on the state of digital learning in Canada.

The Spring 2020 Pulse Survey was open from April 24 through May 1, 2020 and there were 261 total participants. The Fall 2020 Pulse Survey was open from August 10 through September 22, 2020, and there were 427 total participants.

The questions asked in the Pulse Surveys focused on:

- Professional development and faculty preparedness to teach online
- Supporting students and faculty
- Levels of optimism-pessimism for the future of higher education

Qualitative Interviews with Senior Administrators

Also informing the 2020 National Report were a series of qualitative interviews with senior administrators (e.g., Provost, VP Academic) conducted from Fall 2020 through early 2021. A total of 22 senior administrators participated. During the interview, participants provided observations and insights related to the pandemic experience at their institution, particularly the shift to online course delivery. The participants were mostly from Ontario; however, the responses were highly consistent, regardless of where in Canada the institution was situated.



The questions asked in the qualitative interviews focused on:

- The impact of the COVID-19 pandemic on institutional strategies for digital learning.
- Successes and challenges observed over the past year.
- The most pressing needs of institutions as the pandemic continues.
- Strategies for tracking changes in enrolments over time, particularly enrolments in online and hybrid courses/programs, to assess the long-term impact of COVID-19 on digital learning.

More detailed findings from the interviews can be found in 2020 Ontario Report, available here at www.cdlra-acrfl.ca/publications.





KEY FINDINGS

The primary overarching finding of the research conducted throughout 2020 is that the shift to online course delivery in response to the COVID-19 pandemic will likely have a profound and lasting impact on postsecondary education in Canada.

The results also highlight key lessons learned in 2020, which provide insight and guidance as institutions develop immediate plans for the 2021-22 academic year and long-term, post-pandemic strategic plans.

Listed in the order in which they appear in the report, the lessons learned highlight a marked shift in attitudes toward online and hybrid learning at both the institutional and faculty level.

Key lessons learned in 2020:

- The need for developing consistent definitions for terms related to digital learning (e.g. remote learning, online learning, blended/hybrid learning) is imperative for tracking the long-term impact of the pandemic on postsecondary education.
- The rapid shift to emergency remote teaching and continued online course delivery throughout 2020 placed considerable burden upon faculty and students, which will need to be reduced going forward. If institutions choose to expand their online and hybrid offerings post-pandemic, then providing time, support, and resources to set faculty and students up for success will be imperative.
- By Fall 2020, most faculty felt prepared to teach online. Professional development related to teaching online was widely available to faculty as they prepared for the 2020 Fall semester. Regardless of the type of professional development, it was perceived as effective by faculty.
- Administrators and faculty remain concerned about equity: the pandemic amplified and shone a spotlight on persistent inequities in higher education. If online and hybrid learning is going to occur to a greater extent post-pandemic, then needs like affordable widespread access to high-speed Internet, affordable learning devices, and accommodations for students with disabilities must be addressed.
- The pandemic provided a first-hand opportunity for administrators and faculty to explore the potential for online and hybrid learning at their institution. While most respondents reported feelings of optimism toward the future of higher education, the concerns expressed by those with neutral and pessimistic perspectives are equally important. Institutions must consider the unintended consequences of expanding online and hybrid offerings and develop strategies to mitigate possible negative impacts for students and faculty.



Despite the challenges of the massive shift to online course delivery, administrators and faculty throughout Canada anticipate an increase in online and hybrid course offerings post-pandemic. The 2020 National Report provides insight into a pivotal year in Canadian higher education and offers recommendations for going forward into, what will arguably be, a new era for teaching and learning.





INTRODUCTION

In March of 2020, as the Canadian Digital Learning Research Association (CDLRA) was preparing to launch our annual National Survey of Online and Digital Learning, the World Health Organization declared COVID-19 to be a global pandemic and Canadian higher education moved almost entirely online. The digital learning landscape in Canada was transformed, practically overnight.

Like institutions across the country, the CDLRA pivoted our research plans to capture the transformations that were taking place over the course of the year. We postponed our usual National Survey until 2021 and added new research projects: the Canadian Pulse Project and qualitative interviews with senior administrators at institutions across the country.

The Canadian Pulse Project consisted of two short surveys, one in Spring 2020 and one in Fall 2020. The purpose of these surveys was to gain a sense of the changes and challenges that faculty and administrators experienced as the year unfolded. Recruitment for the Spring survey was done via the Academics Top Ten and included 273 higher education faculty and administrators from across Canada with most of the responses coming from Ontario, Alberta, and British Columbia. Recruitment for the Fall Survey was done through the Academics Top Ten, Contact North's email newsletter, and via outreach to the CDLRA roster of Canadian publicly-funded post-secondary institutions. The Fall Survey included responses from 427 faculty and administrators and, again, most of the responses came from Ontario, Alberta, and British Columbia.

The 2020 National Report provides findings from the Canadian Pulse Project. In addition, the report also includes findings from one-on-one interviews with senior administrators from colleges and universities across Canada. Together, the findings from these projects provide tremendous insight into how institutions transformed their practices in response to an unusual year in which the COVID-19 pandemic required that nearly all courses to be delivered online.

At the time of writing this report, the pandemic persists and post-secondary courses throughout Canada continue to be delivered primarily through Internet technology.



EVOLVING DEFINITIONS

When students and faculty began the 2020 Winter semester, it was business as usual with classes being held in-person unless a course or program was designed to be taught online. No one expected that the term would end with nearly all courses being delivered remotely, primarily through the use of online platforms.

Online Learning versus Emergency Remote Teaching

Of utmost importance as we discuss teaching and learning online in the pandemic context is the misuse of the term *online learning* to describe the nature of instruction at the onset of the pandemic. Throughout 2020, scholars in the field of digital learning called for use of the term *emergency remote teaching* instead, suggesting that online learning is more than a mode of delivery^{1 2 3}.

This report expands upon the definitions that the CDLRA put forth in the 2019 National Report. Namely, the revised definitions differentiate intentional online course delivery from emergency online course delivery.

Distance Education: No classes are held on campus and all instruction is conducted at a distance.

**Remote learning is the tenet of distance education and it encompasses both online learning and other modes of delivering instruction and course materials at a distance.*

1 Bates, T. (2020, April 7). What should we be doing about online learning when social distancing ends? Online Learning and Distance Education Resources. <https://www.tonybates.ca/2020/04/07/what-should-we-be-doing-about-online-learning-when-social-distancing-ends/>

2 Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020, March 27). The difference between emergency remote teaching and online learning. Educause Review. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and-online-learning>

3 Johnson, N., Veletsianos, G., & Seaman, J. (2020). U.S. faculty and administrators' experiences and approaches in the early weeks of the COVID-19 pandemic. *Online Learning*, 24(2), 6-21. <https://doi.org/10.24059/olj.v24i2.228>



Online Learning: A form of distance education where the primary delivery mechanism is via the Internet. Instruction is delivered synchronously or asynchronously, and the course and materials are “intentionally designed in advance to be delivered fully online. Faculty use pedagogical strategies for instruction, student engagement, and assessment that are specific to learning in a virtual environment” (Bates, 2020, para. 18).

Emergency Remote Teaching: “A temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances [which] involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated” (Hodges et al, 2020, para. 13). Online course delivery was the primary mode of emergency remote teaching in 2020 and it included synchronous and asynchronous instruction and communication.

Hybrid Learning: Also referred to as blended learning, hybrid courses or programs are intentionally designed to combine both online and in-person instruction.

As the year progressed, it also became apparent that the meanings attached to commonly used terms such as remote learning, online learning, and hybrid learning were becoming increasingly muddled and varied as more people added these terms to their lexicon. The one-to-one interviews conducted with senior administrators in late Fall confirmed that different institutions attach very different meanings to these same terms and it appears that institutional definitions, themselves, have evolved in the pandemic context. Tracking the development of online and hybrid learning (both regionally and nationally) will prove challenging in the years to come unless consistent definitions are adopted nation-wide.

The CDLRA has placed a priority on revisiting how each institution defines its remote, online, and hybrid offerings in 2021. Our objective is to develop a strategy that facilitates consistency in tracking online and hybrid offerings to gain a national-level understanding of the development of online and hybrid learning in Canada.

LESSONS LEARNED:

The need for developing consistent definitions for terms related to digital learning (e.g. remote learning, online learning, blended/hybrid learning) is imperative for tracking the long-term impact of the pandemic on postsecondary education.



CHALLENGES OF 2020

As one would expect, the sudden shift from the status quo of predominantly in-person learning to delivering nearly all courses online created exceptional challenges for institutions, faculty, and students.

The following are quotes from faculty and administrators captured from open-ended survey comments that illustrate the challenges experienced by faculty and administrators at the end of the Spring semester and at the start of the Fall semester.

Spring 2020

The first Pulse Survey was administered at end of the Spring semester right at the time that institutions were making decisions about the upcoming Fall semester. Faculty and administrators were invited to leave an open-ended comment stating what types of assistance they needed most as they looked ahead to a Fall semester where courses would most likely continue to be delivered online. Although the responses were varied, several common themes related to challenges emerged.

It was clear from the open-ended comments that the main challenges experienced by faculty and administrators in Spring 2020 related to the following: the unknowns of the pandemic, logistics, financial concerns, workload, and supporting faculty.

Respondent Remarks:

What type of assistance do you need most as you look ahead to the Fall semester?

"Clear communication, evidence based decisions on the part of the government, access to tutorials for getting classes online." (Administrator, University)

"Highlights of innovative and best practices. Reviews of post-secondary activity by province." (Administrator, College)

"Fair pay for the significant increase in the number of hours required to do my job as a sessional instructor." (Faculty, College)

"To have a lighter load in order to devote time to preparation, and not be expected to use vacation time to prepare." (Faculty, College)

"Teaching assistants to co-facilitate the online interactions with students." (Faculty, College)

"Technology assistance for faculty." (Administrator, University)

"Being told not to worry about research or my annual report and just concentrate on moving all my fall courses to online format." (Faculty, University)



"Financial assistance, both for helping fund transitions to remote teaching and for any enrolment gap that will lead to a financial gap." (Administrator, University)

"I find clear, early, and frequent communication from my department chair most helpful. This is not always delivered in 'normal times,' and instructors need more support from these administrators now and moving forward." (Faculty, University)

"Having a working crystal ball so we'd know what the coming year would be like so instead of preparing for a plethora of possibilities, we could focus on simply what's required ... :)" (Administrator, College)

"Instructional design support. And funding for the costs!" (Administrator, College)

"A strong leadership with a clear vision/strategy would be the best assistance in that it would provide a way to decide what is essential and what should be put on hold for the interim." (Administrator, University)

"The time with pay to prepare. We have been told we must take all vacation days before fall semester starts which gives us no time to prepare." (Faculty, Polytechnic)

"Most [faculty] are asking for time to properly convert f2f to online delivery. Also need to look at the type and volume of learning and evaluation requirements -- both for students and faculty. How to support high tech software requirements from home." (Administrator, College)

Faculty and administrators specifically mentioned challenges related to teaching and learning including supporting and engaging students, academic integrity, and facilitating previously hands-on activities in an online learning environment.

"Cheating on online tests and assignments is a big problem in the college system. We need easy to administer systems to monitor test activity and improvements to Turnitin that flag reworded content." (Faculty, College)

"Strategies for dealing with labs, studio programs, and other required experiential learning components of our learning programs." (Administrator, College)

"Help with ideas to get to know and welcome first year students into our program." (Faculty, College)

"Some training for students who will not be coming on campus for an orientation to the technology and the other student supports they can access." (Faculty, College)

"How to prevent cheating and sharing of course materials. How to still create engaging and interactive sessions when mostly teaching asynchronously." (Faculty, University)



Fall 2020

As faculty began the fall semester, they were asked about the professional development that had been made available to them and their sense of preparedness for another semester of online course delivery. The open-ended responses related to feelings of preparedness revealed challenges that persisted, despite a much greater overall sense of preparedness for the Fall semester among faculty.

Respondent Remarks:

What would help you feel more prepared to teach partially or fully online this fall?

[Translation] "Have more time! I am running out of time, few resources available to help us (e.g. having access to staff who help us set up activities, materials); because we have to reconcile this novelty with everything else (committees, supervision of graduate students, research, etc.)."

[Translation] "To have had more time; to have had individualized support; to have had more help." (Faculty, University)

"Lower teaching load so that I could prepare for the courses I need to teach." (Faculty, University)

"Better institutional support." (Faculty, College)

"A course that is designed to be delivered face to face requires a pedagogical redesign to be delivered by Zoom. In addition, for hands on practical skill learning, for learning about professionalism and for learning about communication and therapeutic relationships, students need in person and individual contact. Currently, there is no acceptable software or program to replace these experiences. Simulation is promising but also requires in person activity...although simulation DOES NOT REPLACE all clinical hours. Our workloads require more time for planning and delivery of courses and programs." (Faculty, College)

"The ability to have in-person exams." (Faculty, College)

"A stronger testing policy." (Faculty, College)

"Teaching the same course each term rather than being shuffled to a different course. More assistance with IT problems. Some instructors are more computer literate than others so many struggle. More time - everything takes much longer to figure out, questions that could be answered face-to-face very quickly take much more time in the online environment. All the instructors that I have contact with are spending much more time prepping, answering emails, learning new protocols and procedures etc." (Faculty, College)



Perspectives of Senior Administrators

During the qualitative interviews, senior administrators also described their most pressing challenges as the pandemic continues. Common sentiments shared by senior administrators included:

- **Access:** Many students and faculty have struggled to access to the technologies necessary to teach and learn remotely (e.g., devices, broadband Internet).
- **Course quality:** In order to improve the quality of courses delivered remotely from Spring 2020 to Fall 2020, institutions provided faculty with professional development opportunities related to teaching online; however, concerns about the quality of courses delivered online in the pandemic context remains a concern.
- **Hands-on learning:** Courses and programs that rely on hands-on learning and in-person practical experiences appear to present the greatest level of challenge in terms of conversion to an online format. Administrators expressed a desire for others to share innovative teaching practices for hands-on learning activities that have emerged during the pandemic.
- **Student engagement:** Administrators have observed that many students struggle to connect and engage with their professors and other students in the absence of in-person learning options.
- **Workload:** Administrators recognized that the workload for faculty increased significantly due to demands of teaching in a pandemic context and the learning curve required for the shift to remote course delivery. They acknowledged that many faculty are fatigued and overwhelmed.
- **Assessment:** Determining the best way to maintain academic integrity while assessing students online remains a pressing concern for institutions. Senior administrators expressed mixed feelings about the use of online proctoring for students taking exams from home.
- **Comfort with technology:** Many faculty and students had to learn to use technologies with which they had little prior experience. Administrators noted that institutions and faculty should not assume that students' existing digital skills (e.g., using a smart phone and engaging with peers via social media) give them the skills needed to learn in a digital context.

A more detailed discussion on challenges put forth by senior administrators can be found in the 2020 Ontario Report, which is available at www.cdlra-acrfl.ca/publications.



LESSONS LEARNED:

If institutions choose to expand their online and hybrid offerings post-pandemic, close communication with faculty and students is imperative. The rapid shift to emergency remote teaching and continued online course delivery throughout 2020 placed considerable burden upon faculty and students, which will need to be reduced going forward. Providing the time, support, and resources to set faculty and students up for success is imperative.





PROFESSIONAL DEVELOPMENT AND FACULTY PREPAREDNESS

Prior to 2020, many faculty had little to no experience with teaching in an online context. With the rapid shift to emergency remote teaching in 2020, many faculty found themselves in the position where they were expected to use online platforms and digital technologies to deliver their courses with no advance preparation using unfamiliar technologies.

In the first few weeks of the pandemic, there was hope that the shift to emergency remote teaching would be short-lived; however, that hope soon faded and it became clear that courses would be delivered online for the foreseeable future. The extension of remote learning from Spring in the Fall gave rise to the need for faculty professional development related to teaching online.

Spring 2020

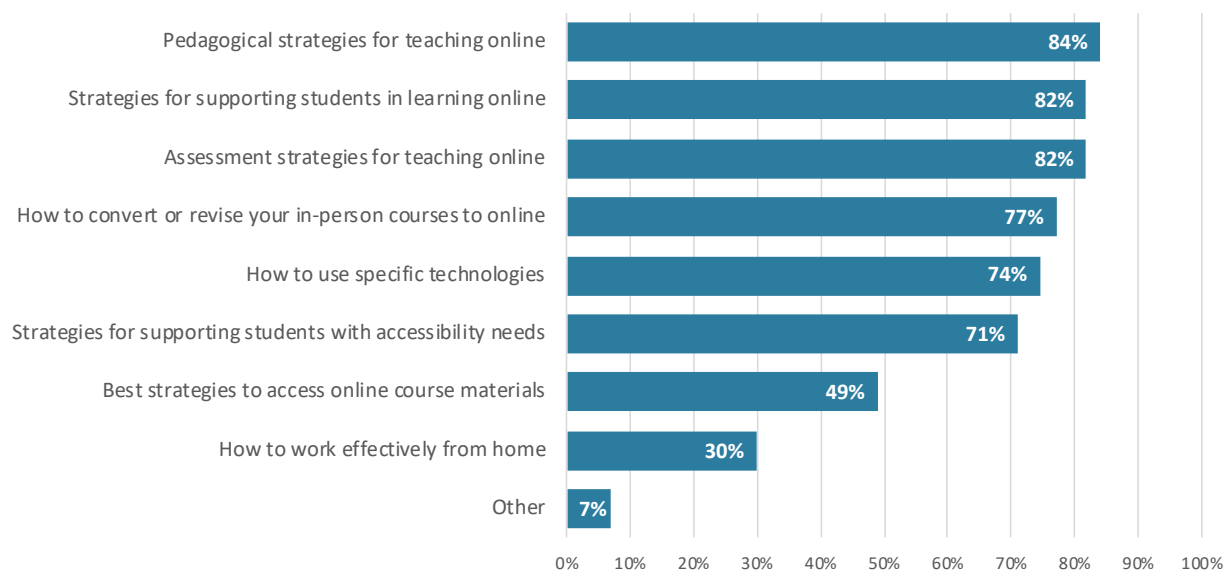
The Spring Pulse Survey was conducted as faculty and administrators wrapped up the Spring semester, with the understanding that the Fall semester would likely be online. The survey asked faculty about the professional development topics related to teaching online that were of the most interest and their desired professional development methods.

The majority of faculty reported needing professional development in multiple areas related to teaching online. The top three areas where faculty reported needing professional development were pedagogical strategies for teaching online (84%), strategies for supporting students in learning online (82%), and assessment strategies for teaching online (82%). Roughly three-quarters of faculty also reported a need for professional development on how to convert in-person courses to an online format (77%), how to use specific technologies (74%), and strategies for supporting students with accessibility needs (71%).



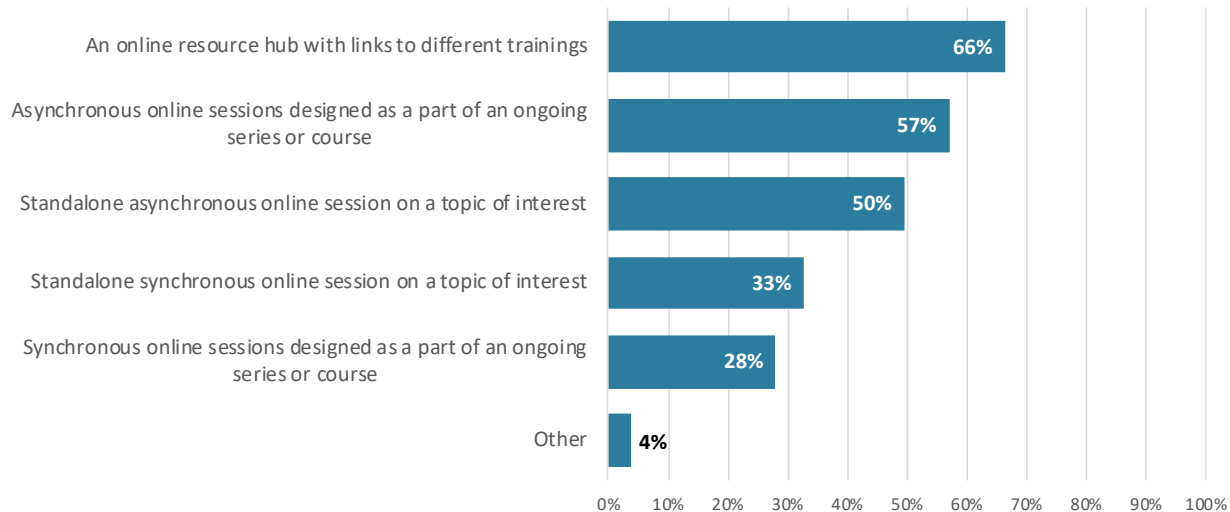
Overall, the chart below shows that faculty reported a strong need for professional development that covered many aspects of teaching online.

National: Professional Development Topics Needed



The survey also asked faculty about the delivery of professional development and what methods of delivery would work best for them. An online resource hub with links to different trainings was the most popular response (66%). More faculty were interested in asynchronous professional development than synchronous options, although roughly one-third of faculty expressed a desire for synchronous online professional development.

National: Desired Professional Development Methods





Some faculty respondents also left open-ended comments expressing their professional development needs in the Spring of 2020. Common professional development needs expressed by faculty included techniques for facilitating student engagement, ensuring accessibility in an online setting, technology-specific support, and strategies for teaching previously hands-on activities in an online environment.

Respondent Remarks:

"Learning what the best options would be for synchronous learning. I am teaching music skills classes and so far have not found any option where both student(s) and teacher can be practicing excerpts, etc. together. Maybe it does not exist...in either case, it would be helpful to reach out to instructors of the same type of course at other institutions, to see what solutions have been found (or commiserate)."
(Faculty, College)

"Training to create podcasts and short videos to supplement textual and other course materials."
(Faculty, University)

"Techniques around interacting with students in a synchronous manner. I have done many screencasts now but would like to encourage more interaction between me and students and between students and students." (Faculty, College)

"Webinars related to best practices particularly on accessibility issues for online instruction."
(Faculty, University)

"Assistance in developing science labs and field studies in alternative formats." (Faculty, College)

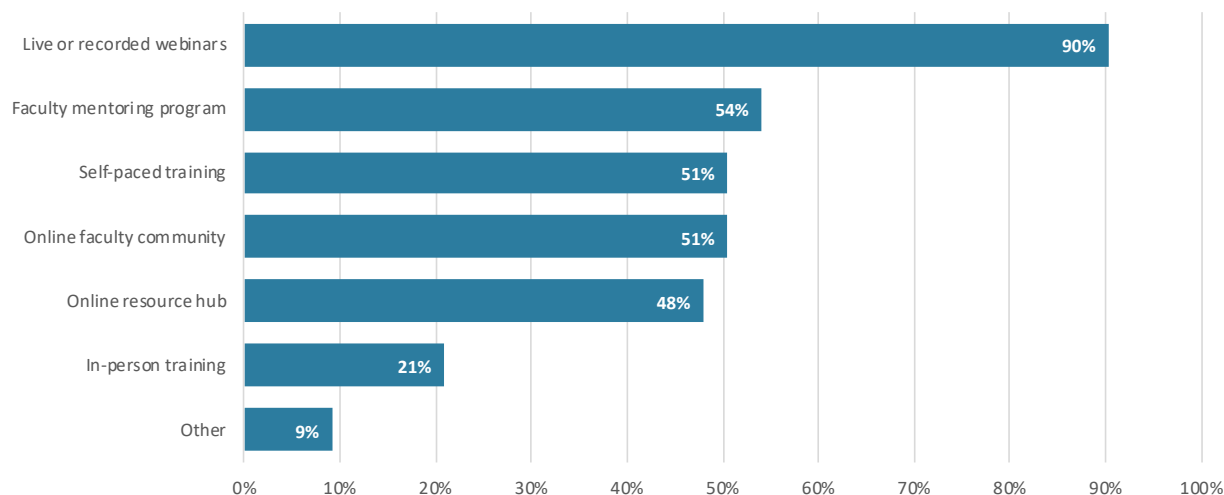
"Toolkits, resources, best practices, content formatted for online by discipline and level within discipline. Tips and tricks. Information about the plethora of online resources for different kinds of learning. And especially - how to support students with disabilities." (Faculty, University)

Fall 2020

The second Pulse Survey took place during the early weeks of the Fall semester. Considering the need for professional development that was expressed by faculty in the Spring, the Fall Pulse Survey asked faculty about the types of professional development that was recommended or provided to them by their institution over the summer months.

Almost all faculty (90%) had live or recorded webinars made available to them and roughly one-half of faculty had the following types of training recommended or provided: a faculty mentoring program (54%), self-paced training (51%), an online faculty community (51%), and an online-resource hub (48%). For obvious reasons, given the pandemic restrictions, only a small proportion of faculty (21%) had in-person training recommended or provided to them.

National: Professional Development Recommended and/or Provided



The number of faculty that had no professional development options (related to teaching online) recommended or provided to them by their institution was miniscule 0.5%), which suggests that institutions placed high priority on training faculty to teach online over the summer months.

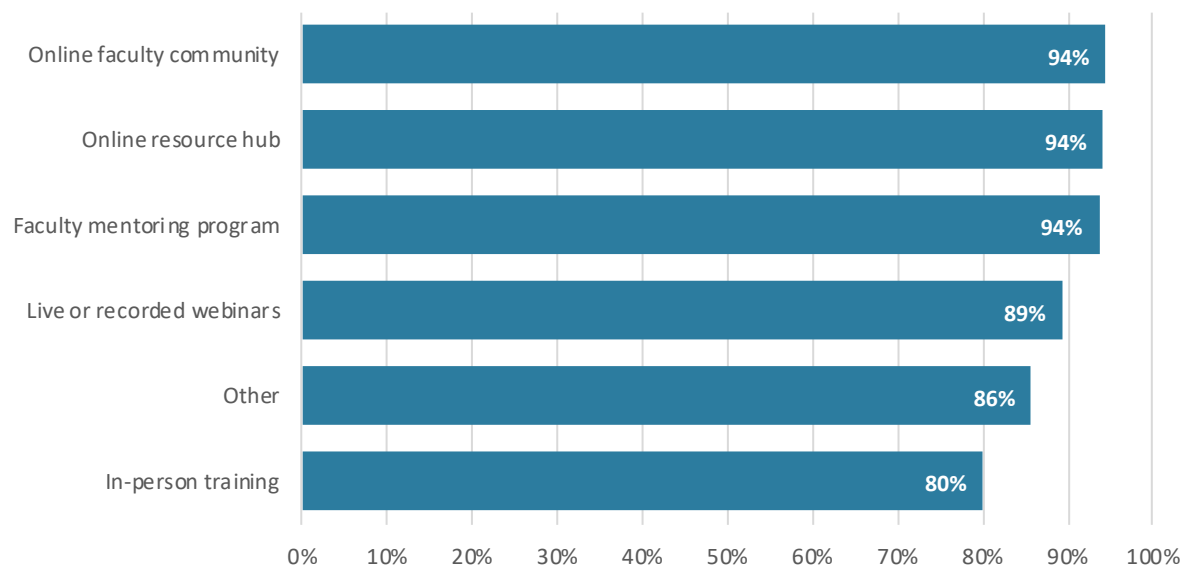
While providing professional development for teaching online was of critical importance, it was also necessary to investigate whether faculty found this professional development to be useful.

The Fall Pulse Survey asked faculty about the overall effectiveness of the professional development that was made available to them.

Nearly all faculty (94%) reported that an online faculty community, an online resource hub, and a faculty mentoring program were effective professional development options. The majority of faculty also reported that live or recorded webinars, in-person training, and other types of professional development were effective. The findings suggest that any type of professional development was highly useful and there was not one form of professional development that was largely better than the others.



National: Effectiveness of Professional Development

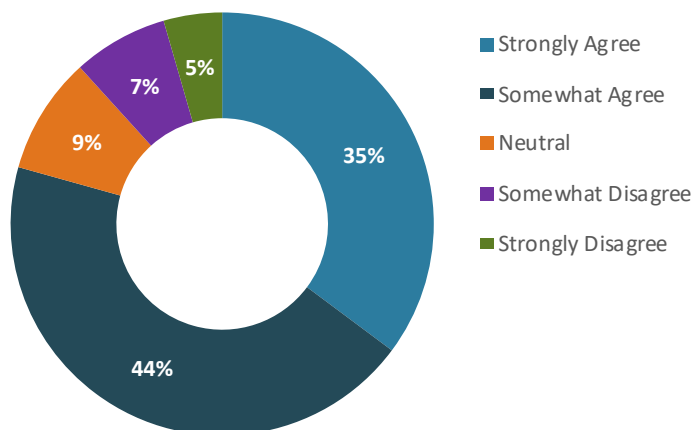


Along with investigating the nature and effectiveness of professional development for faculty at the start of the Fall semester, the Fall Pulse Survey also asked about faculty preparedness to teach online. Faculty, themselves, provided responses and administrators were also invited to offer their perceptions of faculty preparedness.

Over three-quarters (79%) of faculty agreed that they felt prepared to some extent to teach online in the Fall semester.

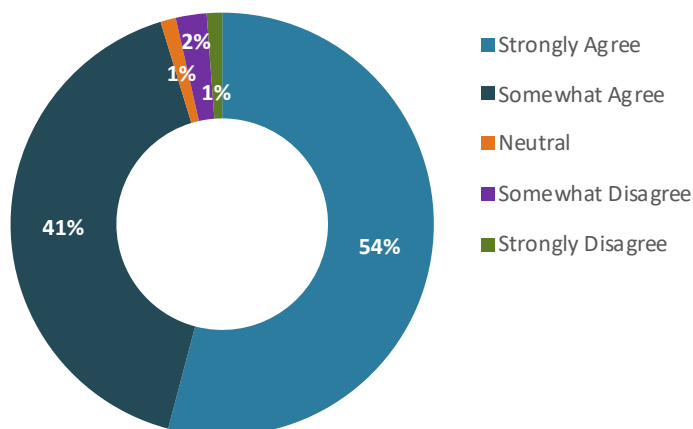


National: I feel prepared to teach online this fall



Administrators were more optimistic about faculty preparedness and nearly all (95%) agreed to some extent that the faculty members at their institution were prepared to teach online in the Fall semester.

National: Our faculty are prepared to teach online this fall





LESSONS LEARNED:

By Fall 2020, most faculty felt prepared to teach online. Professional development related to teaching online was widely available to faculty as they prepared for the 2020 Fall semester. Regardless of the type of professional development, it was perceived as effective by faculty





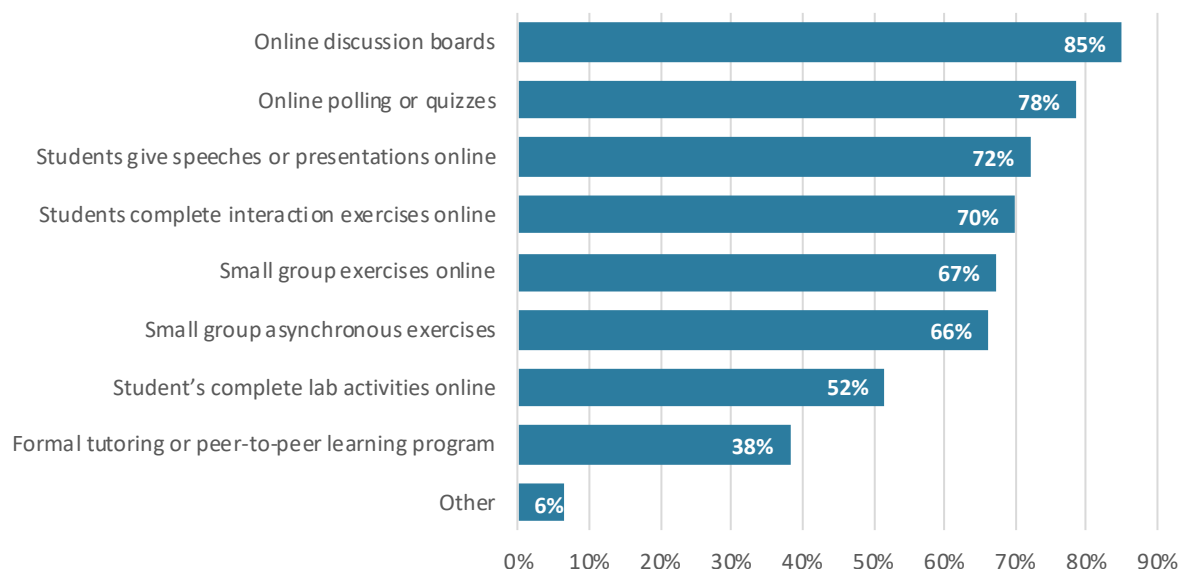
SUPPORTING STUDENTS AND FACULTY

It is widely recognized that students and faculty faced extraordinary challenges throughout 2020, particularly in the early weeks of the pandemic. The Spring Pulse Survey asked two questions that focused on the supports that institutions were putting in place. The Fall Pulse Survey asked about equity and student communications.

Institutional Supports

The Spring survey asked respondents what their institution provided, or supported, to facilitate emergency remote teaching during the early weeks of the pandemic. Most respondents (85%) reported having access to online discussion boards. Roughly three-quarters of respondents reported that their institution supported online polling or quizzes (78%) and students giving speeches or presentations online (72%). A majority of faculty also reported that their institutions provided or supported interactive student exercises (70%) and small group exercises in online environments either synchronously (67%) or asynchronously (66%). About one-half of respondents (52%) reported that their institutions provided or supported students' lab activities online.

National: Institution Provided or Supported



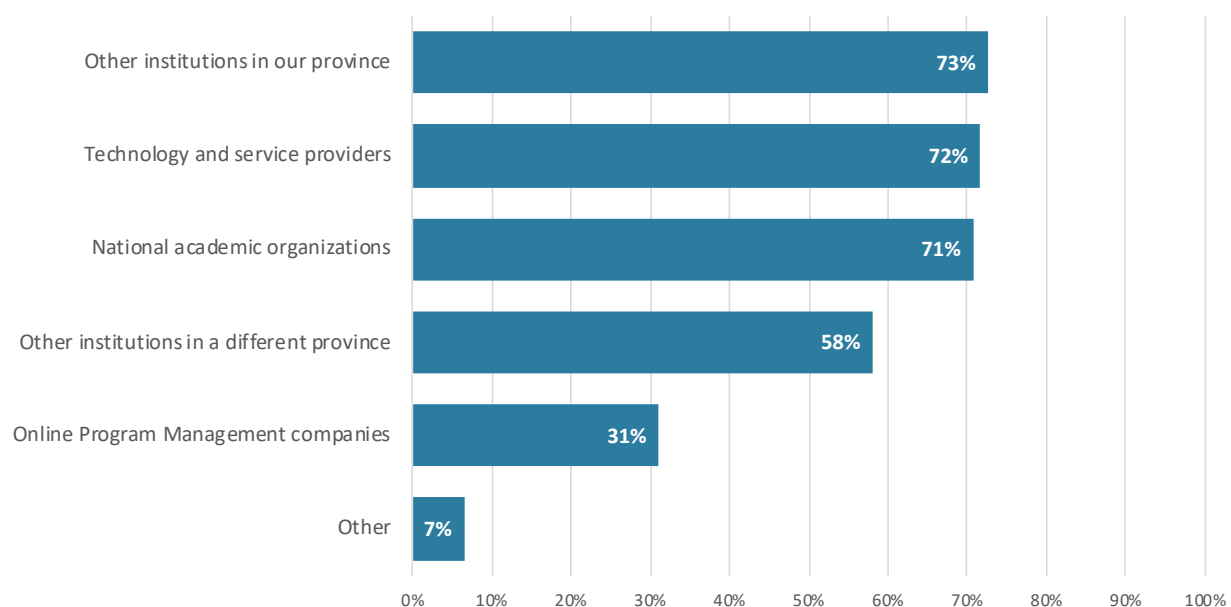


Partnerships

Considering that the Spring Pulse Survey was conducted at the time that institutions were announcing plans for the Fall 2020 semester, the survey asked responding administrators about the value of partnerships as they made preparations to support students and faculty through another semester of online course delivery.

Roughly three-quarters of administrators reported that partnerships with technology and partnerships with other institutions in their province (73%), technology service providers (72%), and national academic organizations (71%) were valuable. A smaller majority of administrators (58%) noted the value of partnerships with institutions other provinces and about one-third of administrators (31%) perceived partnerships with Online Program Management (OPM) companies to be valuable.

National: Value of partnerships in preparing for the Fall





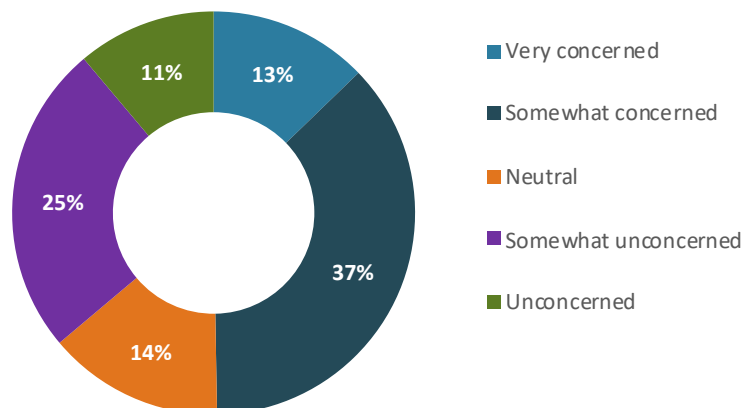
Equity

One of the main concerns noted throughout the year, in open-ended comments and interviews with senior administrators, was the issue of equity. Great disparities exist among faculty and among students in terms of having the technological resources and a suitable workspace to teach and learn.

In the Fall Pulse Survey, both faculty and administrative respondents were asked whether they were concerned about their capability to deliver equitable learning opportunities when delivering courses online.

One-half of respondents were concerned to some extent about their capability to deliver equitable learning experiences online and roughly one-third were unconcerned to some extent. The remaining 14% of respondents were neutral.

National: Concern about delivering equitable learning opportunities online



Respondents also were invited to leave open-ended comments to elaborate on why they were concerned about their institution's capability to deliver equitable learning opportunities online. Common responses included concerns about access to technology and wi-fi (both for students in northern, rural communities and in major urban centres), whether suitable accommodations could be made for students with disabilities in an online context, and concerns as to whether faculty to adequately assess individual learner needs online.



Respondent Remarks:

Please explain why you are concerned about your institution's capability to deliver equitable learning opportunities if courses are delivered online.

"We have some students who live in the far north where Internet connections may not always be stable. Our provincial government has pledged funds to increase infrastructure. Despite that, our institution does offer a free laptop borrowing program for low-income students. Some faculty who teach in the Adult Basic Ed programs expressed concerns that students who are not able to attend face to face lessons may become demotivated quickly to complete their GED or education levels. Adult Basic ed students typically need more in person supports due to past negative experiences in the educational system. To mitigate this, our faculty have been offering private video chats and did receive permissions from the Privacy office to call students over the phone in some circumstances." (Faculty, Polytechnic)

"As a comprehensive community college, some of our programming is more challenging to deliver online than others. While we are finding new ways to provide online lab and practicum experiences, we are still challenged to meet the needs of students with lower digital literacy levels and/or limited access to technology at their home. Students who rely heavily on in-person supports are at a disadvantage." (Administrator, College)

"Resources for students (such as on loan computers) limited." (Faculty, University)

"Many students do not have access to reliable computers and wi-fi. At our institution we serve a lot of multi-barriered students, some with low literacy, some with physical disabilities, and the online learning platforms present considerable challenges to those student demographics." (Administrator, College)

"It is much harder to deal with the various learning styles in an online environment than in person, much less identify that at students is not "getting it" and providing added instruction at that moment in time." (Faculty, College)

"Access for learners with disabilities requires specialized resources and skills, which has not been funded for online program development in our department." (Administrator, University)

LESSONS LEARNED:

Administrators and faculty remain concerned about equity. If online and hybrid learning is going to occur to a greater extent post-pandemic, then needs like affordable widespread access to high-speed Internet, affordable learning devices, and accommodations for students with disabilities must be addressed.



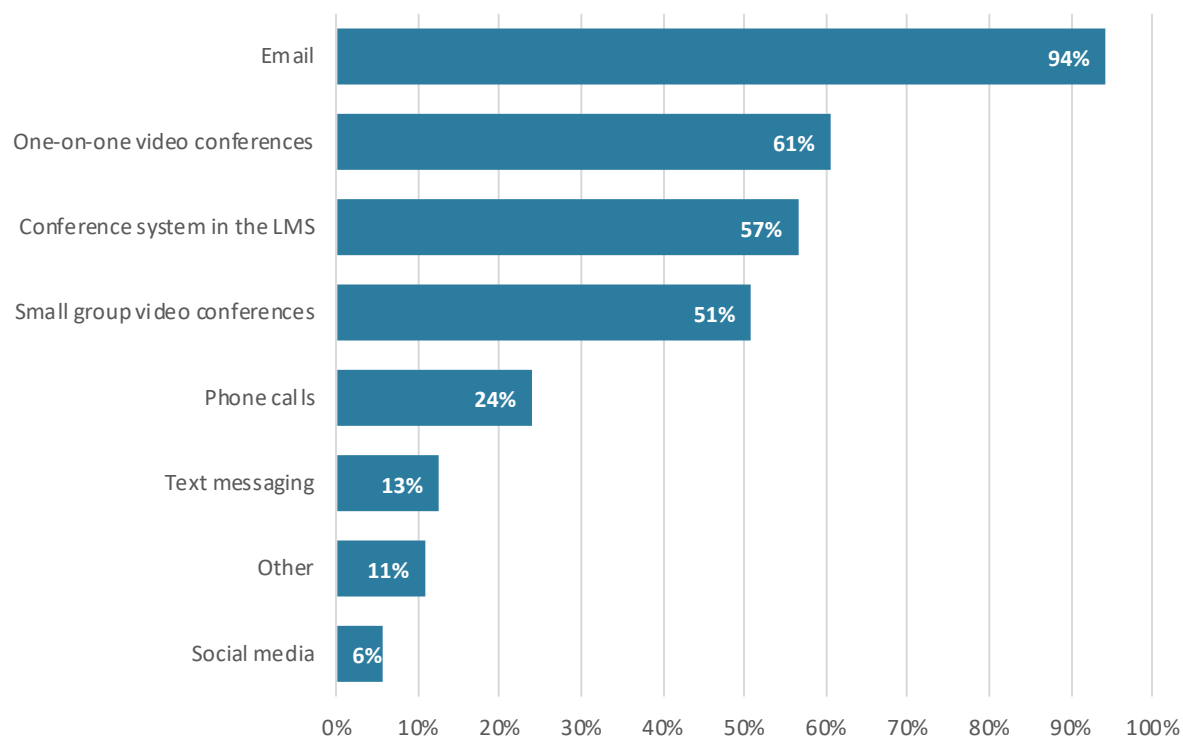
Communications with Students

From the onset of the pandemic through to the present state, few faculty have been able to have in-person interactions with their students. The Fall Pulse Survey asked faculty how they have been communicating with students outside of class sessions.

Interactions between faculty and students outside of class has primarily been through email, with almost all faculty (94%) reporting that they use email to communicate with students. A smaller majority of faculty also reported using one-on-one video conferences (61%), the conferencing system within their institution's learning management system (LMS) (57%), and small group video conferences (51%).

A minority of faculty (24%) communicated with students via phone calls and only a few respondents used text messaging (13%) or social media (6%) for student communications.

National: Communicate with students outside of class sessions





OPTIMISM – PESSIMISM FOR THE FUTURE

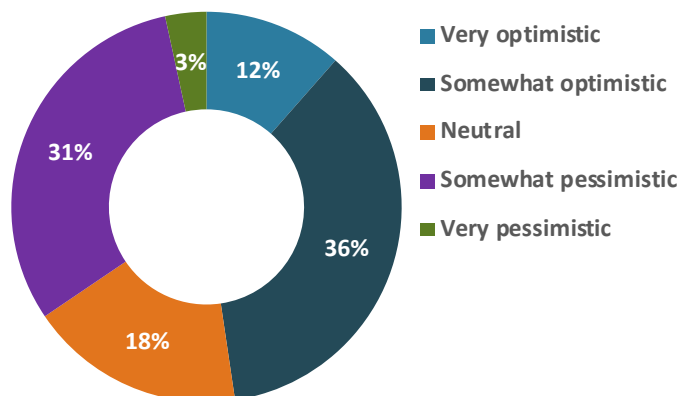
Perceptions of optimism and pessimism shifted from the Spring to the Fall, with a far greater proportion of respondents expressing an optimistic viewpoint by the Fall 2020 semester.

Spring 2020

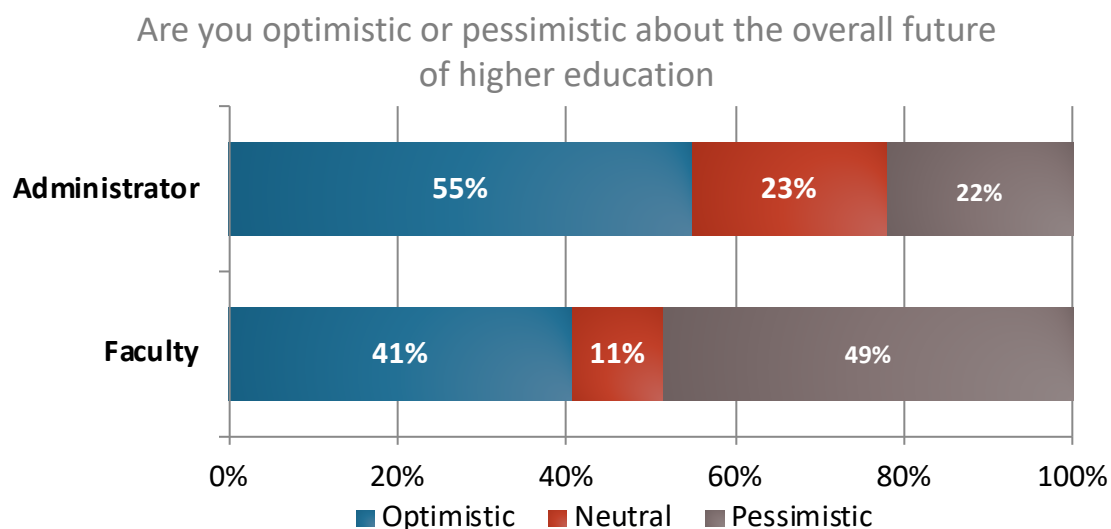
In the early weeks of the pandemic, there was a collective sense of overwhelm among faculty and administrators as they transitioned to teaching remotely in an online context. To assess how the pandemic and the experience of emergency remote teaching was impacting respondents' feelings toward the future of higher education, the Spring Pulse Survey asked whether respondents felt optimistic or pessimistic about the overall future of higher education over the next two years.

Nearly one-half of respondents (48%) reported feeling optimistic to some extent whereas a sizeable minority (34%) reported feeling pessimistic to some extent.

Are you optimistic or pessimistic about the overall
future of higher education



When separating the responses for faculty and administrators, it became apparent that administrators were more optimistic than faculty in the Spring of 2020 with 55% of administrators reporting that they were optimistic compared to 41% of faculty. Further, administrators were far less likely in the Spring of 2020 to express a pessimistic viewpoint. Only 22% of administrators reported feelings of pessimism compared to 49% of faculty.



In the open-ended comments, faculty and administrators expressed the reasons for their feelings of optimism and pessimism during the Spring 2020 semester. Optimistic respondents noted the opportunities that the pandemic presented for innovation and expanding accessibility to post-secondary education. Pessimistic respondents expressed concerns about the quality of online learning, their (or their institution's) preparedness for teaching online, and the impact of the pandemic on international student enrolments.



Respondent Remarks:

Describe your reasoning for your selection of optimism or pessimism.

"A seismic shift in thinking, a refocus on Academic programming and significant increase in innovation and creativity will hold us well into the future!" (Administrator, College)

"We have and are adapting to deliver education in a different manner that can make it more accessible". (Administrator, College)

"People are going to have to re-train and up-skill to be able to adapt to our new normal that requires increased digital literacy and competence." (Administrator, University)

"Moving to an online learning environment has given us pays to reflect on how to engage in alternate ways. It allows us to examine best practices and it exposed gaps in our own personal knowledge." (Faculty, College)

"In times of economic downturn, people return to school. The need for higher education will not leave us. Young students, without the choice of face to face - and a beleaguered job market, will, I believe, cope with whatever format we can offer. However, learning at a distance may open their choices of institution, as they will not need to commute". (Faculty, University)

"I believe there is going to be a dramatic fall off in enrollment from International students which has operationally helped keep institutions afloat but will leave a huge hole in budgets going forward. I also believe that faculty resisters to online will either change or be left behind so there will be a big shake up in employment. I do not believe we will be going back to old normal state but will have to adjust. I also think private sector trainers will compete with traditional ed ferociously." (Faculty, University)

"Our institution is ill-prepared for teaching online. Our culture, our programs, our collective agreements, our faculty, etc., are all geared to f2f learning." (Administrator, College)

"My bias is there is no substitute for face to face education and learning." (Faculty, University)

"The current focus is on putting content online. I feel the focus should be on building effective learning environments and supporting students in those spaces." (Faculty, University)

"Disruption may be beneficial to education system long term, but depending on management choices, may be a very difficult time." (Faculty, College)

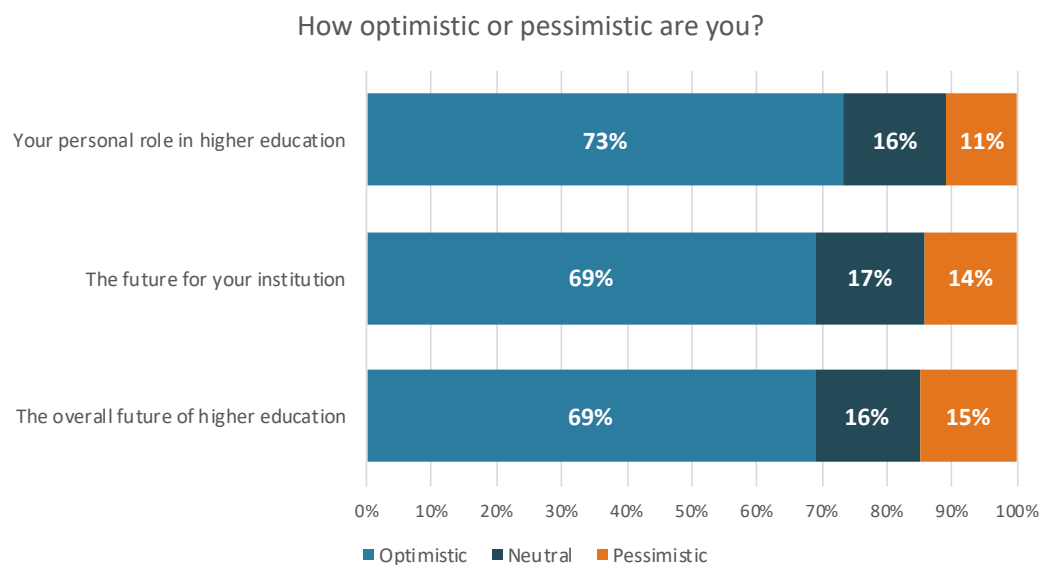
"I think it could go either way. This might revolutionize higher education as we know it, and it could certainly use an overhaul. Unfortunately, large institutions don't usually respond well to quick change, and the pre-existing systems that govern us may impede a true transformation. Only time will tell. Also, the success of any institution in the upcoming 2 years very much depends on the success of society at large, and who knows how that's going to go." (Faculty, College)



Fall 2020

To gain a sense of whether faculty and administrators' feelings of optimism and pessimism had shifted as they became more accustomed to an online model of course delivery, the Fall Pulse Survey asked again about feelings toward the future. Respondents were asked whether they felt optimistic or pessimistic about their personal role in higher education, the future of their institution, and the overall future of higher education. The results show that faculty and administrators were most optimistic about their personal role in higher education in Fall 2020.

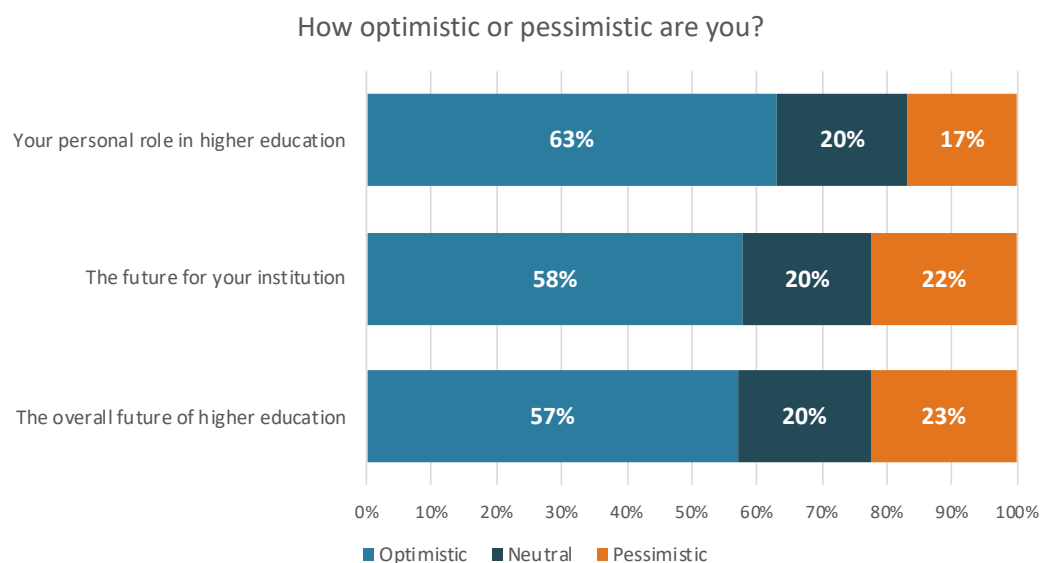
The findings also revealed a significant shift from the levels of optimism and pessimism seen in the Spring: respondents were much more optimistic in the Fall. Nearly three-quarters of respondents (73%) reported feeling optimistic to some extent about their personal role in higher education and more than two thirds of respondents reported feeling optimistic about the future of their institution (69%) and the overall future of higher education (69%). Few respondents reported feelings of pessimism.



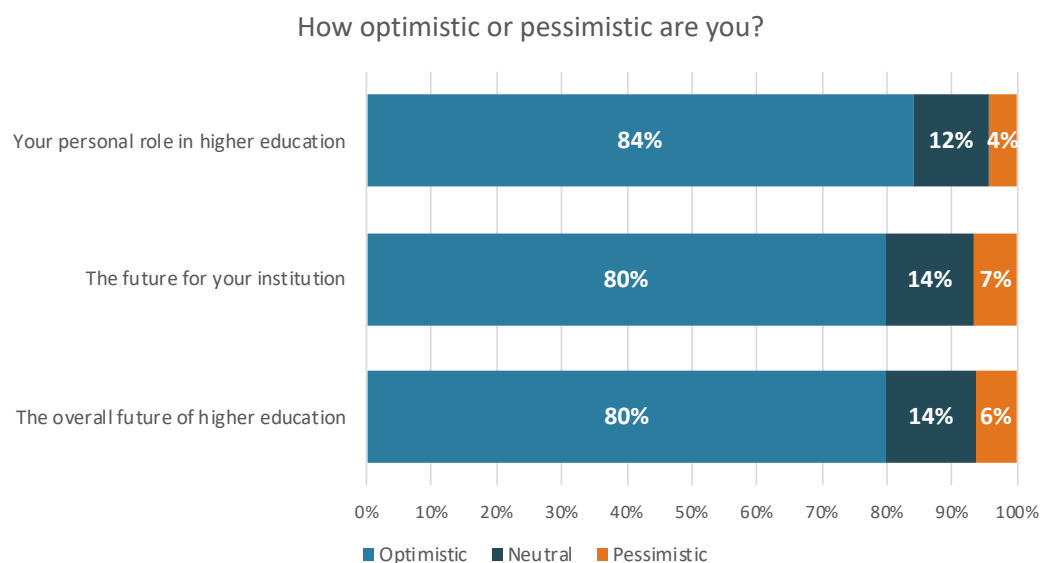
When examining the Fall Pulse Survey data for differences between faculty and administrators related to feeling of optimism or pessimism, a substantial shift toward feelings of optimism was evident in both groups.

In Spring 2020, nearly half of faculty (48%) reported feelings of pessimism toward the overall future of higher education; however, in Fall 2020, only 23% reported feelings of pessimism

toward to the overall future of higher education and 57% reported feelings of optimism, compared to 41% in the Spring.



Although administrators were mostly optimistic (55%) about the overall future of higher education in Spring 2020, they were overwhelmingly optimistic (80%) in Fall 2020.





As in the Spring, some respondents shared explanations for their feelings of optimism or pessimism in Fall 2020. Notably, the open-ended comments that respondents provided in the Fall offered insight into the shift toward greater feelings of optimism.

Of the minority of respondents that expressed feelings of pessimism, concerns included academic integrity, the economic impacts of the pandemic and the implications for students, job security, and intellectual property rights related to online content created by faculty.

Respondent Remarks:

Explain the rating (optimistic, pessimistic, neutral) you provided.

[translation] "I believe Covid has forced our institution to update itself by offering asynchronous online courses. Which is a good thing in my opinion. I believe it is better for the future of our institution." (Faculty, University)

"There is a silver lining in the mass move to digital teaching and remote learning for looking at how we redefine teaching and learning in post-secondary. This opportunity to rethink, replan and reconsider student learning is a significant opportunity for all post-secondary to take a hold of and move on - right now!" (Administrator, College)

"The changes that occurred when the pandemic occurred were exactly the changes the institution needed. What would have taken normally 3-4 years to implement took 2-4 weeks. Although we are missing social aspects of learning which are important we were lagging behind not only in technology but how our students want to learn or at least have the option to learn. Many large scale lectures and tutorials are rarely full by mid-terms; however, with online sessions our numbers of attendance to classes tutorials, etc. were at 85-90% full each time. Our institutions also has many different campuses and students are no longer limited to take courses in a particular area/campus and this has allowed for more interdisciplinary learning opportunities." (Administrator, University)

"I believe that the shift to online learning will benefit higher education through improving access to some students. It is an opportunity to look at the courses we teach and determine the fit with online learning in the future. With the increased pressure for classrooms, online learning can help to free up space for courses that are best taught in person." (Faculty, College)

"If you would have asked me at the beginning of the pandemic I would have rated all 3 towards the pessimistic side . . . I am not naturally inclined or attracted to using technology. This experience has taught me that remote learning is a viable option where 6 months ago I would have fought it tooth and nail. While the majority of the courses in our program would be better taught and learned in a traditional setting, I now see the benefits and flexibility of have some of our program being taught online for the long term." (Faculty, College)

[Translation] "Despite the significant changes made to teaching practices, training remains a priority for society. The pandemic has resulted in several job losses which may cause people to return to school. For our part, the number of admissions has increased despite the context of distance education. Being a regional CEGEP, distance education allowed students from other regions to register with us since the courses were offered online." (Administrator, CEGEP)



"I'm fairly optimistic, since I really don't believe that the generalised online situation of higher education is sustainable long term. It is clear that students don't love it. The future surely resides in a hybrid approach." (Faculty, University)

"I believe that education is a valuable commodity with employers and within society. The time for recovery on the economy will also impact our students and their ability to work and pay tuition and fees. I am optimistic about the importance of my role but am concerned about the financial strength of my institution. Everyone is vulnerable at this time." (Administrator, College)

"I am worried that online will become the main mode of delivery. I do not believe it is beneficial for majority of students or faculty. I am afraid that our courses will lose value, become "course in a box"."
(Faculty, College)

"With the lack of help from government, my institution is essentially alone is assuming the cost of the pandemic. This has already led to job cuts, and I might be in the next round of cuts. With the overall decrease in teaching quality and readiness due to online teaching, this will create a huge gap between students graduating and students being skillful enough for the work market (whatever is left of it)."
(Faculty, University)

"With the college owning all content they can easily replace me and just rerun any online content I create." (Faculty, College)

"The amount of academic integrity issues we are having with emergency remote teaching/testing is a major issue. I feel that diplomas earned during this time do not carry the same value as those earned other years." (Faculty, College)

LESSONS LEARNED:

The pandemic provided a first-hand opportunity for administrators and faculty to explore the potential for online and hybrid learning at their institution. While most respondents reported feelings of optimism toward the future of higher education, the concerns expressed by those with neutral and pessimistic perspectives are equally important. Institutions must consider the unintended consequences of expanding online and hybrid offerings and develop strategies to mitigate possible negative impacts for students and faculty.



POST-PANDEMIC IMPLICATIONS

Both the Spring and Fall Pulse surveys asked respondents to make predictions about the near-future of Canadian post-secondary education and the long-term impacts of the COVID-19 pandemic. The open-ended responses from the Spring and Fall Pulse surveys provided valuable insights into the potential long-term impact of the COVID-19 pandemic on higher education.

The responses indicate a widespread belief among faculty and administrators that post-secondary education will not return to the pre-pandemic state. The area for greatest potential, evidenced by the respondents' predictions for the future, is hybrid learning. Respondents also expressed concern about ensuring course quality and effectively preparing students for the workforce as more online and hybrid options emerge in the coming years.

Spring 2020

In Spring 2020, survey respondents were asked to imagine that it was the year 2023 and that the COVID-19 pandemic was over. With this in mind, what did they think higher education would look like in 2023?

The open-ended responses showed that respondents envisioned a post-pandemic future with greater flexibility, increased use of technology, and more hybrid offerings. At the same time, respondents felt the facilitation of strong social connections, whether through technology or in-person learning, would be a key component of the educational experience.

The following comments highlight common sentiments expressed by respondents:

"More choice for students with regard to delivery. Fewer faculty in total and only those that have welcomed change will survive in the field." (Faculty, College)

"Online teaching and learning experiences have become the norm and enhance the face-to-face learning opportunities and human connections still offered by many post-secondary institutions and still sought by students, instructors, and communities. Virtual teams thrive". (Administrator, University)

"I think it will return to normal--pretty much. Humans are a "herd" species. They like to be in groups. A large part of education isn't the teaching of content--it's the getting together to discuss, share, and just be with others." (Faculty, University)

"More fluidity and flexibility for degree programming allowing student to pick and choose courses that they want to fulfill their personal expectations." (Administrator, University)

"Far more hybrid courses. Far greater use of Open Educational Resources (finally!)." (Administrator, College)



"A mix of on-campus, hybrid and online programming with much higher commitments to community engagement, citizen science, greening economies, environmental recovery and integrating minoritized perspectives, including Indigenization of the academy, all led by a younger, more diverse professoriate." (Faculty, University)

"There will be a deeper understanding of digital education all around, with recognition that each teaching format processes different strengths. Faculty will have a better capacity to pivot between face-to-face and fully online delivery. Tenure and promotion processes will be adapted to acknowledge this, student services will have adapted to this new environment and senior administrators will have made a point of learning about the pedagogy the underlies effective use of different educational technologies. AND I hope senior administrators will have avoided jumping into long-term contracts with more predatory ed tech organizations, in favour of developing digital teaching capacity in-house." (Faculty, University)

"Focused on the human connection, the emotional needs of learners and faculty, learning from things that worked and didn't, demanding more of institutions to provide adequate support to sustain technology enabled learning." (Faculty, College)

Fall 2020

In Fall 2020, survey respondents were asked: Looking in your own crystal ball, what long-term impacts do you think this pandemic will have for higher education?

The responses continued to emphasize greater flexibility and adaptability in course offerings and learning pathways, greater (and more innovative) use of digital technologies in teaching and learning, and an increase in alternative credentialing.

"I believe there will be greater adoption of educational technologies and teaching strategies will evolve to include technology in innovative ways to enhance the teaching and learning experience." (Administrator, College)

"We will become more flexible and adaptable in our teaching and learning. Hopefully, these skills will filter to students to carry out into the workforce." (Administrator, University)

"Faculty become less centralized, students enjoy being at home more, strong emphasis on media and digital delivery, less patience for instructor uncertainty or inability to utilize digital communication methods." (Faculty, College)

"I believe we will have less qualified individuals, as I believe online testing will result in more plagiarism and less student actual progress." (Faculty, College)

"More online offerings; lower enrolment in programs that lead to careers that are not "pandemic-proof". (Administrator, University)

"In my program, I fear that in some clinical areas, students may not get the depth of experiences they were previously able to get. Grads may require a higher degree of mentorship after graduation. Distance learning may also take a greater emotional/psychological toll on students and faculty/staff." (Faculty, University)



"May see a drop in retention, as some students struggle with so much 'independent' learning; could see an improvement in faculty pedagogy, or at least an increased interest in pedagogy." (Faculty, University)

"The social aspect of learning from others (peer to peer learning) may decrease somewhat as students will be limited to interactions with others in their own programs; whereas, they may have interacted with learners in other programs via meetups, athletics, lunchroom chats, etc." (Faculty, Polytechnic)

"There will be a stratification of institutions between those who successfully deliver online training and those who don't. Those who don't may close down unless they can make a compelling business case for specialized, unique in-person education." (Administrator, College)

"It will fast-track innovation in educational technology and push people into educational experiences that they would not have chosen previously. That will alter public perception about the value of digital learning experiences. Institutions will need to re-evaluate their investments and resource allocations between physical facilities and digital infrastructure." (Administrator, College)

"I think that there will be a loss of personal attention in situations where it had previously existed (like small programs or small classes). I believe there will be a loss of learning related to team work for the students, and an inability for them to more fully develop the social skills necessary in many fields. Ultimately, I think society will be less satisfied with the products of higher education, while the graduates will be oblivious." (Faculty, College)

"It will definitely change the face and landscape of HE. Many more timely and specific credentials (e.g. in the form of short certificate or microcredential programs) will be available and offered in greater numbers to draw on a broader potential student base. We'll also need to be more proactive in determining what new fields of study will best serve employers, industry, and society at large." (Faculty, College)

"There will be a bifurcation of online learning. Those who care deeply about learning will continue to leverage the technology to foster more meaningful learning experiences for students. There will be another group who will shift into mass surveillance and notions of "learning" as performative testing. This divide has grown and it will be up to leaders in higher education to really revisit the role of universities in society. My hope is that we will work towards the former vision and we will reduce our reliance on invasive technologies (online proctoring, expensive 3rd party publisher testing systems)." (Administrator, University)

"For continuing education, the long-term impact is monumental. This pandemic will enable progressive approaches for teaching and access to learning for adult students. It is critical that there is investment in digital infrastructure to include all remote communities across Canada and a common understanding of credentials." (Administrator, University)

"The power and potential of online learning is finally being exposed, so there will be no going back to "traditional" learning modes. The future will be blended with a wide range of different approaches using both formal and informal learning." (Faculty, University)

"Hopefully it will modernize our approach to teaching and with funding, could create innovations in pedagogical approaches that could improve in-person teaching and ultimately benefit all student; it could also create more learning opportunities for students who need accommodations." (Faculty, University)



Perspectives from Senior Administrators

During the interviews with senior administrators, there was consensus among participants that, even when a return to in-person learning becomes a possibility, institutions will continue to provide considerably more online and hybrid options than they did pre-pandemic. Ultimately, it seems likely that a ‘new normal’ will emerge post-pandemic, which will be distinctly more digital than the pre-pandemic status quo.

For multiple institutions, the pandemic accelerated the implementation of an already-developed strategic plan for digital learning. Several senior administrators mentioned that the rapid transition to online course delivery was do-able because they already had a strategic plan at the ready. The challenge was rapidly implementing that plan in a matter of weeks, if not days, instead of rolling out the plan over the course of years.





CONCLUSION

The onset of the COVID-19 pandemic and the subsequent, widespread shift to remote course delivery created a watershed moment for Canadian higher education. The former status-quo, where many faculty and institutions had limited experience with online teaching and learning, is no more.

Over the course of 2020, institutions pivoted, innovated, and provided faculty with professional development for teaching in an online environment. During the process of adapting to the circumstances of a pandemic, and despite the many challenges that institutions, faculty, and students faced, the potential for increasing technology use going forward was realized. It appears likely that the future of Canadian post-secondary education will involve a far greater use of technology going forward to offer more flexibility and accommodations to students.

Yet, inequities persist that must be addressed. Although online and hybrid learning opportunities break down barriers for some, these modalities create new barriers for others. The technologies needed to teach and learn online are not accessible for all and cost remains a huge barrier. Some students thrive in online learning contexts and others thrive in-person. Regardless of learning context, social learning experiences are important at the post-secondary level, as is sense of personal connection to the institution itself.

At the time of writing this report, vaccines are being rolled out while Canadian face the third wave of the pandemic. The next 12 months will likely continue to be precarious to some extent, but the light at the end of the pandemic tunnel is beginning to appear. There appears to be a shift in thinking from 'survival mode' to strategic planning for the post-pandemic future. Faculty and administrators are eager to learn about innovative pedagogies implemented by others and there appears to be a desire for greater collaboration to share best practices going forward.

Lastly, considering the unprecedented and (most-likely) lasting shift toward online, hybrid, and technology-enhanced learning, the need for common definitions for frequently used terms (e.g., online learning, hybrid learning, remote learning, alternative delivery, distance learning, etc.) has never been greater. As institutions expand their offerings, a shared understanding of these key terms will facilitate our ability to track the growth of digital learning at the national level and will enhance our ability to collaborate with one another as we explore best practice in our new era of learning.



METHODOLOGY

Information for this report comes from two national surveys of higher education administrators and teaching faculty.

Spring Survey

From April 24 through May 1, 2020, the Canadian Digital Learning Research Association (CDLRA) research team surveyed faculty and administrators from across Canada to explore the learning scenarios they anticipated for fall. The survey was a collaborative effort between Nicole Johnson (Canadian Digital Learning Research Association), George Veletsianos (Royal Roads University), Jeff Seaman (Bay View Analytics), and Academica Group.

Respondents included 273 higher education faculty and administrators from across Canada with most of the responses coming from Ontario, Alberta, and British Columbia. Of the total of 14 questions, 10 were displayed to faculty respondents and 13 to administrators. Since many academics have both teaching and administrative responsibilities, respondents were asked to select their primary role and were only presented with questions for that role.

Fall Survey

For the August/September survey the CDLRA research team again surveyed faculty and administrators from across Canada to explore how they were implementing their plans for the Fall. As with the first survey, this was a collaborative effort between Nicole Johnson (Canadian Digital Learning Research Association), George Veletsianos (Royal Roads University), Jeff Seaman (Bay View Analytics), and Academica Group. Contact North was added as a partner for this portion of the project.

Respondents included 427 higher education faculty and administrators from across Canada with most of the responses coming from Ontario, Alberta, and British Columbia. Of the total of 17 questions, 15 were displayed to faculty respondents and 14 to administrators. Since many academics have both teaching and administrative responsibilities, respondents were asked to select their primary role and were only presented with questions for that role.



Fall Interviews with Senior Administrators

In October of 2020, the CDLRA Research Director, Dr. Nicole Johnson, worked collaboratively with the CDLRA eCampusOntario liaison, Rachel Sumner, to reach out to senior administrators (e.g., Provost, VP Academic) across Ontario to schedule semi-structured interviews. The Research Director conducted these one-on-one interviews from October through December via video-conferencing software to better understand how institutions have adapted to a model of primarily online course delivery in the pandemic context. As an alternative to the interview, respondents were also given the option of answering the questions in written form via a fillable PDF document. In early 2021, the CDLRA emailed the senior administrators from other provinces that were listed in our roster to conduct further interviews to confirm whether the key findings from Ontario were present at other institutions outside the province. The findings from the interviews were consistent across the country.





THE CDLRA TEAM

Administrative Team

Dr. Tricia Donovan is the Executive Director of the CDLRA. She is currently the Principal, eCampus at NSCC. She has over twenty years of experience with online, distance and digital education with colleges, universities and consortia. She was the Executive Director, eCampusAlberta for 15 years and works closely with the eCampus organizations across Canada and in partnership with WCET in the United States. She has experience in working with online and digital learning strategic planning, quality assurance in online learning and consultation.

Dr. Nicole Johnson is the Research Director of the CDLRA and has been involved in the field of educational technology since 2010. She is the primary author for the 2020 CDLRA reports. Outside of her role with the CDLRA, Nicole is also involved in research studies through Bay View Analytics investigating faculty experiences with digital technology and the impact of the COVID-19 pandemic on online learning in the United States. Additionally, Nicole is part of a research team at Royal Roads University that is exploring the future of higher education. She has experience researching changes in academics' online participation over time and informal learning experiences among adults in digital contexts related to competency development.

Dr. Jeff Seaman is the Director of Analytics for the CDLRA. He has worked in education information technology his entire career and currently serves as Director of Bay View Analytics. His experience includes creating and running the Computing Resource Center at the University of Pennsylvania, Chief Technology Officer at HighWired.com, Vice President of Engineering for Vista Associates, and Chief Information Officer for Lesley University. He has taught at multiple institutions and served on numerous academic technology advisory boards including Apple Computer, IBM, and Microsoft. Jeff also serves on the CDLRA Board of Directors.





Board of Directors

Dr. Tony Bates is currently a Senior Advisor at the Chang School of Continuing Education, Ryerson University. He is also a Research Associate at Contact North | Contact Nord. He has 50 years of experience in using technology for teaching, including teaching online, managing online programs, conducting research into educational technologies, and consulting on digital learning strategies and management. Tony has pioneered the annual CDLRA National Survey and continues to guide the direction of the CDLRA as the organization evolves over time.

Dr. Denis Mayer previously led Continuing Education and Student Affairs Laurentian University and was involved in distance and online learning regionally, provincially and nationally. He chaired the board of the Canadian Virtual University, the board of the Canadian Association for Distance Education and was a board member for the Ontario Council for University Lifelong Learning and Contact North. He now does consulting in distance education and online learning.

Dr. Ross Paul has spent more than 35 years in senior academic administrative positions in Canadian colleges and universities including presidencies at Laurentian University and the University of Windsor. He has written extensively on leadership and management issues and is best known for his books *Open Learning and Open Management: Leadership and Integrity in Distance Education* (1990) and *Leadership Under Fire: The Challenging Role of the Canadian University President* (2nd edition, 2015).

Dr. Brian Desbiens served as President of Sir Sandford Fleming College from 1988 to 2004 and worked in the college system for 36 years. His areas of expertise include administration in postsecondary education, counselling, human relations, teaching/learning, leadership, and community development. He served on several national and provincial organizations and currently provides educational consulting/executive coaching. Dr. Desbiens is presently providing Executive Coaching to one university President, two post-secondary systems CEOs, and one CEO in Health Care. He is also a Research Associate at Contact North | Contact Nord.

Dr. George Veletsianos is a Professor at Royal Roads University, where he holds the Canada Research Chair in Innovative Learning and Technology. He has been designing, developing, and evaluating digital learning environments for nearly 20 years. His research aims to understand and improve teaching, learning, and participation in digital learning environments by focusing on learner and faculty experiences with online learning, flexible learning, networked scholarship, open education, and emerging pedagogical practices. Dr. Veletsianos has individually and collaboratively published more than 100 peer-reviewed papers, book chapters, and reports. He blogs at <https://www.veletsianos.com/> and his latest book is *Learning Online: The student experience* (Johns Hopkins University Press, 2020).



Dr. Bruno Poëllhuber is a Professor at the Faculty of Education and Director of the Centre de pédagogie universitaire ([CPU](#)) at the Université de Montréal. He is a researcher member of [CRIFPE](#) (interuniversity research centre for teacher education and the teaching profession), [GRIIPTIC](#) (interuniversity research group on the integration of ICT into teaching), and the education division of the International Observatory on the Societal Impacts of Artificial Intelligence and Digital Technologies (OIISIAN). His work focuses on the use of technology for post-secondary and adult learning in both face-to-face and distance education settings (e.g., distance education, MOOCs, flipped learning). More specifically, his research addresses the links between coaching, motivation, engagement and perseverance, the development and adoption of pedagogical innovations with emerging technologies (virtual reality, makerspace, etc.), and active pedagogical practices with ICT, in the context of active learning classrooms and creative spaces. He is co-author of the [Digital Competency Framework](#) (Quebec Ministry of Education and Higher Learning, 2019) and is also interested in issues related to the digital literacy of teachers and students. He holds the 1993 Excellence in Teaching Award for pedagogical innovation. He and his team at the CPU have implemented a series of measures to accompany, support, train and collaborate with all faculties to help teachers make the transition to distance learning.

eCampusOntario/CDLRA Liaison

Rachel Sumner is passionate about connecting learners with innovative experiences that build employability and has spoken and published on these topics around the world. Alongside her consultancy work, she is currently serving as the Founding Executive Director of Ontario Tech Talent, a wholly owned subsidiary of Ontario Tech University, which is intended to fuel Ontario's talent pipeline with job ready graduates.



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