Higher Education Quality Council of Ontario

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Government's Role in Digital Learning: Review and Recommendations for the Ontario Ministry of Colleges and Universities

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Executive Summary

The Ministry of Colleges and Universities asked the Higher Education Quality Council of Ontario (HEQCO) to review digital learning initiatives and activities in the province's publicly assisted postsecondary system, with a particular emphasis on the role of government and of its two funded partner organizations, Contact North and eCampusOntario.

In the past, government had supported and funded a broad menu of digital activities. We recommend that going forward, government link its funding and interventions in digital learning to the objectives and goals it has identified for the postsecondary system. The government's list of objectives and goals should be focused and short. Given that all colleges and universities are engaged in digital learning and offer online programming, whatever is not on the government's list can be left to the postsecondary institutions to do and fund in accordance with their priorities.

We recommend that government continue to improve access to disenfranchised Ontarians in rural and remote communities through fully online courses and programs. This is at the core of Contact North's traditional mandate, and there is an opportunity to refocus Contact North on that central function. As a corollary, government should examine and strengthen broadband delivery to the remote communities that stand to benefit.

Government funding provided through eCampusOntario for faculty training, pedagogical resources, course development and technology supports should be tied more explicitly to the government's goals of enhanced institutional collaboration and expanded credit transfer. Project submissions that do not further these goals need not be funded by a government special-purpose grant. There should be followup to ensure that these goals have in fact been met.

Finally, the government should modernize data collection for digital learning to focus on the measurement of outcomes, just as it is doing more generally through its Strategic Mandate Agreement process. Identifying students who take digital courses or are provided services by provincial organizations, and tagging the data to their Ontario Education Number (OEN) are two initial steps that would allow evaluation of key outcomes such as graduation rates, skills acquisition and postgraduate employment.

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The Charge to HEQCO

In May 2019 the Honourable Merilee Fullerton, then Minister of Training, Colleges and Universities, charged the Higher Education Quality Council of Ontario (HEQCO) with a request to:

1. Provide insights into two government-funded digital-learning initiatives, specifically Contact North and eCampusOntario.
2. Conduct a review of all aspects of digital learning in Ontario with an emphasis on several considerations identified by government.

This review was to culminate with a final report and recommendations to the ministry.

Any request like this, particularly one with as broad a mandate as that identified above, starts with a framing of the problem that one is attempting to solve and the objectives one has for any reform or amendment to the ways that the government now manages, funds and participates in digital learning.

Based on the instructions received from Minister Fullerton, and subsequent discussions with officials from the Ministry of Training, Colleges and Universities (now know as the Ministry of Colleges and Universities or MCU), we have distilled the following key questions the government wishes answered and objectives it hopes to achieve through this review:

1. What are the best — most effective and efficient — ways for government to participate in and fund digital-learning initiatives that add value and complement the extensive digital-learning work already being carried out by Ontario's public postsecondary institutions?
2. How can the two government-funded organizations identified by the Minister — Contact North and eCampusOntario — best contribute to helping government achieve its objectives and goals for digital learning?
3. What is the best model or strategy for government to consider in any reform of its activities in digital learning, particularly the most effective model for achieving government goals including the elimination of duplication of effort and resources? Specifically, what should be the government's role in using digital learning to:
    a. Improve Ontarians' access to postsecondary studies, particularly for students from rural and remote communities and non-traditional lifelong learners?
    b. Improve the quality of postsecondary offerings in Ontario?

c. Facilitate and promote improvements to inter-institutional collaboration within the sector, such as efficient and transparent student-mobility pathways, better credit transfer and the sharing of resources?

During our investigations we have consulted with many individuals and organizations (see Appendix 1) that have informed and helped shape the analysis, advice and guidance we provide to government in this report. Our report is most useful to illuminate key issues, to provide a third-party assessment of key perceptions and challenges, and, most importantly, to suggest promising approaches, policies and practices for government to frame and achieve its primary objectives with respect to digital learning.

Overarching Observations

We begin with three overarching observations.

First, government's past approach to supporting the digital-learning ecosystem in Ontario was somewhat unfocused and disorganized. There are many players — not just the two organizations identified by the government but also all the public postsecondary institutions in Ontario that participate, to varying degrees, in the online-learning space. Other government agencies, like the Ontario Council on Articulation and Transfer (ONCAT), also play a relevant role.

The existing organizations are articulate about what they are currently doing and are generally working within the broad parameters of the mandates and menus of activities given to them by government, as reflected in their transfer payment agreements (TPAs). But they have evolved with little coordination or clear direction from government toward an overall provincial purpose or goal. Government, particularly the previous one, in its enthusiasm for things digital, was unfocused with respect to digital learning, government's role in it and the role of the organizations that it funded. The various entities and institutions have sharp and differing opinions about the contributions and activities of other entities. Students are confronted with this confusion; they can consult a number of different portals to review digital offerings — not to mention those posted by individual postsecondary institutions — but these portals may provide disparate or incomplete information.

If the government's request for this review was motivated by a sense that there is a lack of coherence in the digital-learning world in Ontario, and the government's role in it, then we can confirm based on extensive consultations with primary players that this motivation and sentiment are well-founded.

It is important to stress, though, that all the individuals we met are acting in good faith and attempting to best deliver what they believe their expected contributions to be. The problem is that the activities and initiatives they were asked to establish, articulated in their sequential and evolving TPAs with government, reflect the absence of an overarching guiding objective, policy direction, plan or mechanism to coordinate the various entities and initiatives. Ontario also lacks clear and obvious outcome measures of expected

contributions. If the space is confused, it simply reflects that good people are doing what they think best in an environment where no one has assumed the responsibility of coordinating the various pieces of online learning. The expectations placed on key players may not be clear and are not measured. The good news is that, in our opinion, this is eminently fixable.

The second observation is derived from the analysis above and suggests a key element in injecting order, purpose and harmony into the digital-learning space in Ontario. Specifically, necessary fixes in any planning must be:

1. To link government funding and activities in the online world to the objectives and goals the government has for the Ontario public postsecondary system.
2. To use relevant metrics to rigorously evaluate whether government-funded policies and activities in digital learning are helping advance and achieve desired objectives and goals.

Fortunately, in the thinking behind the initiation of this review, the government has been much clearer about what it hopes to achieve with any proposed reform of its support and engagement in digital learning. Specifically, in its instructions to us, the government has identified the three objectives we listed above: how digital learning might improve access, particularly for students from remote and rural communities; how digital learning might contribute to an improvement of the quality of the learning experience; and how digital learning might assist movement with system-design goals such as greater institutional collaboration, better student mobility and improved credit recognition.

In its new higher-education funding model, the government has already adopted the idea of performance evaluation using outcomes measures. The digital ecosystem is ripe for the application of this philosophy.

The third observation is one that is increasingly ubiquitous and familiar in our reports. It relates to the absence of meaningful, relevant and useful data from which to fashion or derive policy and practice suggestions. Our interviews revealed an absence of hard information about digital learning in Ontario. How many students take digital courses? The province does not collect this basic data. Are the learning outcomes and labour market outcomes for students in digital programming comparable to those learning in more traditional modes? Although we measure these outcomes generally, we do not identify digital learners in order to be able to compare outcomes across modes of delivery. It is our experience that whenever basic questions are asked about digital learning, or the impact of an organization's activities, one is presented with anecdotes and stories but, when pressed, an acknowledgement that our evidence base for making decisions is just not good enough.

Categories of Digital Learning

Digital learning encompasses a wide range of instructional methods and technologies. Sometimes the use of digital infrastructure facilitates removing the constraints of timetabling or geography, sometimes it does not. It is helpful to identify three broad categories of digital learning.

The first is when digital techniques or infrastructure are used in a traditional classroom setting. For example, an instructor may put her notes online, offer the opportunity for students to communicate online instead of having to come to her office, or show videos or YouTube clips in her lectures. A majority of courses now offered in the Ontario system incorporate some form of digital content or delivery within traditional classroom settings.

The second is hybrid learning where the course offered is a blend of face-to-face or traditional classes combined purposefully and deliberately with a material time-shifting or location-shifting digital component that may be used to deliver content, coaching to address student needs or evaluation of student mastery of the material.

The third is fully digital programs and courses where the material and interaction with the instructor is accessed through digital means.

These categories are not exclusive. For example, even a fully digital course may offer the student an opportunity to meet the instructor in person at some point but by design such occasions are limited and constrained.

These categories of digital learning are similar, but not identical to, the ones used by ONCAT, eCampusOntario and the Canadian Digital Learning Research Association (which conducts a regular Canada-wide survey of online learning) to categorize digital offerings in Ontario. Part of the difficulty of thoroughly understanding where Ontario is in digital learning results from a lack of standardization of how people use the term digital or its categories. One of our suggestions for moving forward will directly address this definitional imprecision.

What are Possible Roles for Government in Digital Learning?

As discussed above, the first role for government is to identify its goals and objectives for any changes or reform to its involvement in digital learning. In its charge to us, the government identified three objectives: improved access, improved quality and movement toward greater collaboration between institutions. In the table below, we identify how the three categories of digital learning defined above intersect with the key goals the government has articulated as motivation for this review, and what this means for some of the questions posed, particularly regarding the roles of government versus institutions.

Table 1: Digital Learning and Government Objectives

Type of digital learning		Government objectives: Access	Quality	System collaboration
	Digital within the classroom	Primarily institutions do these things		
	Hybrid delivery			
	Fully online	Here is where government can choose to play a role: Promoting access for the remote and disenfranchised	Building outcomes-based metrics	Raising the bar on shared/transferable courses

Improving access has always been, and will continue to be, a primary policy goal of postsecondary education in Ontario. The results of this historical government concern and focus are evident — Ontario has seen a dramatic increase in postsecondary enrolments. However, as we have reviewed in a recent paper,[1] the increased student numbers have not led to any material diminishing of the participation rate gap between advantaged and disadvantaged Ontario students. Students from rural and remote communities, communities in the north, older students or those facing mid-life job displacement may not have the same access opportunities as students in urban centres, or those living in communities that already have a traditional postsecondary institution. Digital learning provides an opportunity to offer greater access to students from remote and rural communities and thereby helps reduce the participation gap.

There is a continuum of higher and adult learning opportunities in Ontario that spans not just colleges and universities, but the adult skills retraining and apprenticeship systems, private career colleges and other providers. The access opportunities that digital education offers for disenfranchised learners ideally encompass all these elements and help build connections between the various streams of training and learning that the government supports.

1 Deller, F. & Tamburri, R. (2019). *Early Supports for Accessing Postsecondary Education: Good, Bad or Indifferent?* Toronto: Higher Education Quality Council of Ontario.

Digital learning in the classroom and hybrid programming do little to improve access for these populations as, by definition, they still require a student's attendance on campus. Fully online programming is the vehicle for students to access more postsecondary learning opportunities. There is, however, a cautionary note. While fully online programming may be an effective vehicle for providing better access for currently underserved populations, it brings with it a requirement to support students learning in this way, particularly because these students are the ones who may require the greatest support to participate and succeed in postsecondary programming. We will return to this important issue later, particularly with reference to the role of Contact North.

There is much research on the quality of digital learning compared to more traditional teaching methods. Some will suggest that hybrid course offerings may be the best method of combining digital with face-to-face as a vehicle to improve quality. We do not review that extensive literature here except to make the following important point: The institutions and their instructors have primary responsibility for digital content and its quality. Digital courses and programs are already subject to quality assurance review by existing quality assurance bodies. In our conversations, many individuals pointed to rubrics or criteria for evaluating or improving the quality of digital learning.

In the world of quality, the current strategy of government has been to not intrude on institutional or sector-coordinated quality-assurance processes or practices, but to assess quality by measuring student outcomes. Specifically, the government measures whether students graduating from programs are achieving the outcomes it, the students and the public desire, such as high graduation rates, mastery of key skills, stable jobs and good incomes. If these outcomes are achieved, then the government, students and the public can be confident that quality is present. If desired outcomes are not being achieved, then quality must be improved.

Government should adopt the same philosophy with respect to digital learning. Institutions will offer the courses and programs. Government will measure the outcomes. If satisfactory outcomes are achieved, government can conclude that quality levels are adequate. This strategy — of assessing quality by measuring the outcomes of programs — is exactly the one the current government is applying to traditional programs and courses through its outcomes-based funding reforms and new performance metrics. Assessment of quality for digital learning should be no different.

Of course, this approach requires that we collect the information needed to make decisions about digital quality. So, assessing whether students who take online courses and/or programs have comparable outcomes with respect to graduation and labour market success requires that we identify (tag) instances of digital modes of delivery when collecting performance data. We believe that current reporting from institutions to government can be modified to incorporate such tags to allow these assessments.

With respect to enhanced system collaboration, we note first that the goals of government such as enhancing student mobility and interinstitutional sharing of courses and resources are unlikely to be met simply with some amendment to how the province manages digital learning. Achieving these goals will require new policies, practices or incentives beyond those related to digital learning. We can imagine, though, how fully online programming could potentially facilitate some of these goals if it is associated with parameters and criteria for funding that drive these goals.

For example, were the government to fund the development of fully online courses or programs it could insist that access to these funds requires an *a priori* commitment by multiple institutions to offer automatic credit recognition for any student taking such courses. The government could require that multiple institutions collaborate in the development of these courses and commit to incorporating these courses into their overall course offerings. And, after the fact, the government could also insist on ongoing monitoring to ensure that the delivery of these new courses and programs honours the commitments made. If there are few or no enrolments, if no credit transfer happens, if institutions are positioning the new courses to compete rather than collaborate, then the government's objectives have not been met. In sum, we can envision how government support of digital programming could lead to some desired system design changes, but this requires that the funding made available be linked to conditions that steer institutions to behave in this way.

The matrix analysis above suggests to us two lanes for government involvement that might be most promising. The first is to focus primarily on fully digital courses and programs. This type of programming directly addresses the primary goal of greater access, particularly for students who have difficulty attending, or cannot attend traditional campuses. This support can be designed with criteria that facilitate movement toward desired system goals. The second is the measurement of outcomes across all modes of digital service delivery, in order to assess their efficacy.

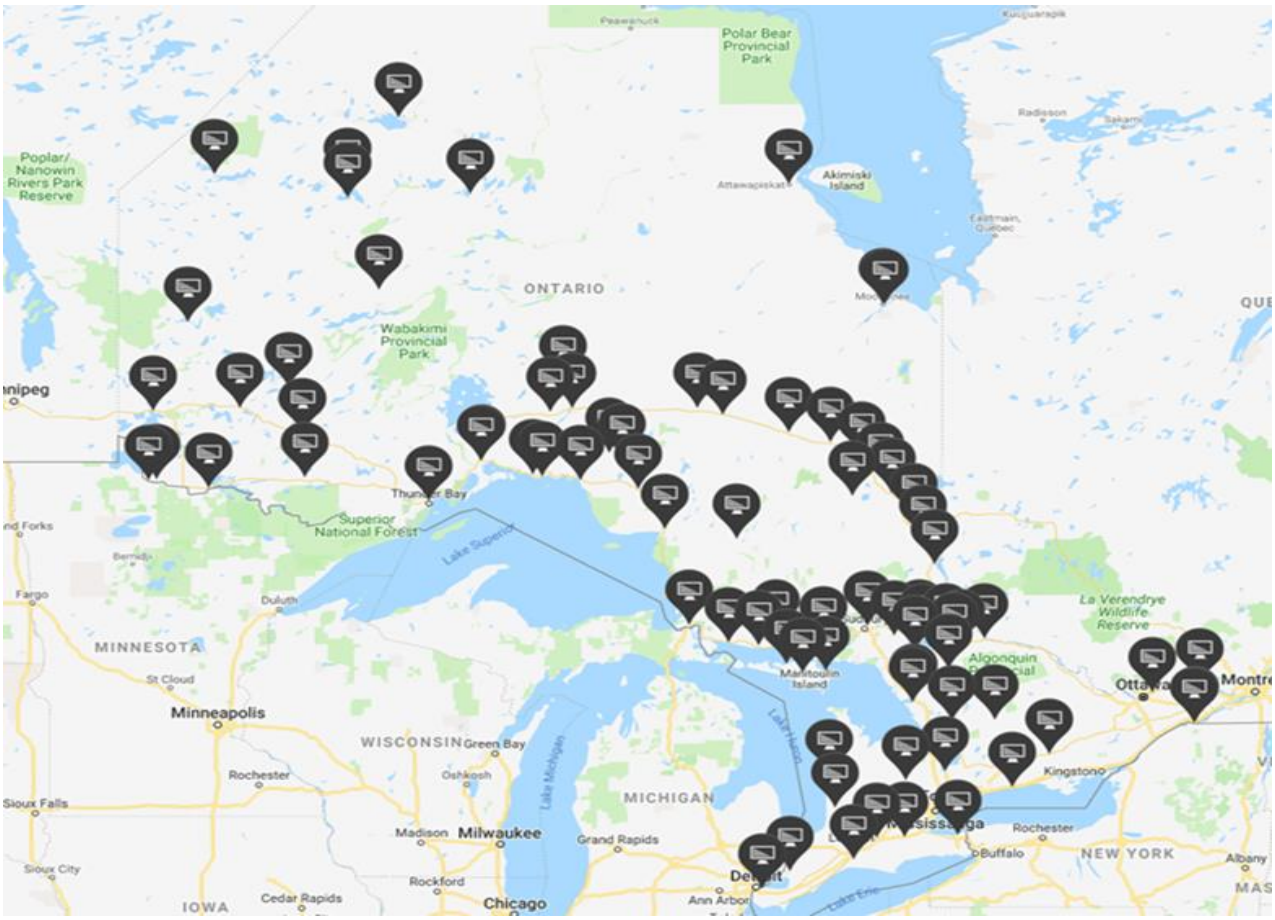
Institutions will incorporate and continue to develop more digital learning in the classroom and in hybrid modes. They may require additional government stimulus to do more in these areas. They will benefit in their efforts to improve from the availability of outcomes data.

Contact North

Contact North is a non-profit corporation created in 1986 to facilitate access to formal education and training at the basic skills, secondary and postsecondary levels. Services are offered in both English and French. Although the initial intent (reflected in its name) was to focus on northern Ontario, and to provide better access to educational services for underserviced and underrepresented populations, the Ontario government subsequently asked Contact North to expand its services into the south. It is clear from Figure 1 that it now serves all of Ontario, in mainly, but not exclusively, rural and remote communities. In 2019–20, it will receive $10.3 million in Ontario government support, $9.7 million provided by MCU and $0.6 million

provided by the Ministry of Labour, Training and Skills Development for access to literacy and basic skills training.

Figure 2: Locations of Contact North Access Centres



Source: Contact North https://studyonline.ca/map

Relevant observations for the purposes of this report are:

1. Contact North maintains 116 access centres across the province. Access centres have two key roles: First, they are the local base for outreach to Ontarians in 600 small, remote, rural, Indigenous and francophone communities. Second, they provide a range of services including:

    a) Information about available online programs and courses

    b) Assistance with registration processes

c) Free use of computer workstations and high-speed internet access, web conferencing and videoconferencing platforms (in some cases, Contact North uses older and slower technologies to deliver internet-based services because of bandwidth limitations)

d) Supervision (invigilation) of written exams and tests

Informally, but importantly, access centres (officially "online learning centres") are also positioned to provide wraparound services and support for students considering or taking online courses. Contact North personnel at access centres live in the communities they serve, understand the issues students face, and provide advice and support for students that is both practical (e.g., how to apply) and motivational (e.g., encouraging students to participate in online class discussions).

Our discussions with northern colleges and universities suggest that while they are also positioned to reach out to remote communities, they would be pressed to replicate the range of services and the geographic footprint that Contact North provides. A single Contact North access centre can efficiently broker services for learners using educational offerings from school boards, colleges, universities and other educational providers.

2. Contact North supports studyonline.ca/etudiezenligne.ca, a website that provides access to information in both English and French about nearly 1,000 programs and more than 20,000 courses available online and at a distance from Ontario's public colleges and universities, Indigenous Institutes, school boards, and literacy and skills training providers. A key objective of this website and Contact North's Student Information Hotline is to drive prospective students to the closest access centre for a more high-touch and personal service. The portal may also ultimately direct the user to institutional websites.

   Other portals or gateways that provide similar and overlapping services regarding online education in Ontario include: eCampusOntario's Learn Online portal, the college system's OntarioLearn listing of shared college online courses and programs, ONCAT's ontransfer.ca course transfers directory and the individual institutions' websites.

3. Contact North works with many, but not all, of Ontario's postsecondary institutions to help recruit students directly to postsecondary program offerings. In some cases, the involvement can be quite extensive. For example, in 2018–19, Contact North reports that it was engaged in 4,904 course registrations at Northern College from a host of its access centres, with about 2,000 course registrations emanating from the South Porcupine access centre.

4. Contact North mounts a variety of other related activities that promote online learning or that share ideas or best practices such as an annual conference, and opportunities to learn more about digital

learning and how to do it better. Topics include emerging pedagogies, course/program design, models and theories of technologically enabled learning, and the use of data analytics to improve student recruitment, engagement and success.

5. Contact North provides extensive documentation of its activities. It has a well-developed strategic plan with targets. Existing performance metrics are largely inputs and descriptions of Contact North's activities, such as the number of visits to its website or the number of course registrations. What is difficult to derive from these numbers is the real impact, or outcomes, of Contact North's services. For example, while we know the number of students who use Contact North, we are not sure how many students from rural and remote communities enrol in similar programs without the assistance of Contact North (i.e., what difference the interventions make). Similarly, we do not know if students working with Contact North enjoy any greater postsecondary success, such as a higher graduation rate, than a similar cohort who navigate these same programs on their own.

   Contact North provides an impressive set of snapshots (anecdotes) and surveys of students who have benefitted from its engagement and services. But anecdotes or self-reports do not provide adequate or sufficiently rigorous evidence upon which to fashion new policies, practices or funding arrangements. It is difficult to assess the benefit of Contact North without the ability to compare to outcomes for students from similar circumstances taking similar educational trajectories but who do not use Contact North. The adoption of the Ontario Education Number to tag Contact North's involvement with a student would, in and of itself, open a world of student tracking and data analytics that is outcomes-focused and allows for the comparison of outcomes achieved through other interventions or pathways.

   We note that there is movement in the direction of outcomes-based performance metrics. In May 2019, Contact North negotiated a set of metrics with MCU that includes outcomes such as employment rates. These are incorporated into the 2019–20 TPA.

eCampusOntario

In 2014, the Ontario government worked with colleges and universities to create Ontario Online, a three-year $42 million investment to support the development of digital learning across the province. The initiative was rebranded as eCampusOntario the following year, and funding was extended to a cumulative total of $72 million over five years. The bulk of the funds has flowed to institutions as requested by government, divided equally between the college and university sectors in agreement with Colleges Ontario and the Council of Ontario Universities.

eCampusOntario is a non-profit corporation positioned between government and its members: the 44 public colleges and universities and the Royal Military College of Canada. Its board of directors predominantly includes college and university administrators and faculty. Its revenues come from the government, and the broad range of functions eCampusOntario currently provides is largely rooted in a rapidly evolving series of TPAs between Ontario Online/eCampusOntario and the provincial government. Although it is difficult to discern a unifying government strategy through this evolution, the TPAs reveal a consistent focus on:

1. Coordinated course delivery across multiple institutions for credit.

2. The generation of best practices, research and data on technology-enabled learning.

3. Interinstitutional collaboration on tools, services and technologies to create a suite of supports for online learners and their instructors.

The eCampusOntario website (www.ecampusontario.ca) provides a detailed description of its activities. This report offers the following key observations about its current functions:

1. A high priority activity for eCampusOntario is the production and promotion of Open Educational Resources (OERs) to provide savings to students. OERs are openly licensed digital teaching resources and can include articles, course modules and open-access textbooks. Open-access textbooks, if assigned by an institutional instructor, are available to students at no cost. At present, the eCampusOntario library is the repository of over 300 learning resources, many of which have been adapted for Ontario institutions in localized environments. This function parallels the activity of other agencies in other provinces, such as BCcampus, which serves as a model for this activity and which also maintains a repository of nearly 300 open textbooks.

   eCampusOntario reports that $2.8 million has been invested in open-resource development since 2016. The return on this investment accumulates over time, depending on the rate at which member institutions integrate the adoption of OERs in place of texts and other materials that must be purchased by students. As of the end of October 2019, eCampusOntario estimates that 53,500 students have saved $5.8 million, or about $107 per participating student.

2. In service of its members, many of eCampusOntario's activities support and directly fund the development of online offerings in Ontario's public colleges and universities. Between 2016 and 2018, eCampusOntario provided 167 grants for the development of online programming through a New Program Development Fund, Open Content Initiative Fund, and a Research and Innovation Fund. It awarded $20.3 million to support development by institutions of new online programs, the adaptation of traditional programming to online format, and the support of research and innovation

of online learning. eCampusOntario does not create content; rather, it provides grants on a competitive basis to Ontario postsecondary institutions, which create the courses and programs and integrate them into their program offerings.

Of the 39 projects funded through the development fund, 28 are collaborative among multiple institutions; in fact, the degree to which a project promotes institutional collaboration is one of the scoring criteria. These collaborative projects are designed to facilitate credit recognition across multiple providers.

3. eCampusOntario also promotes best practices, good pedagogy, research and innovation related to online learning. It does so by offering advice on online course design and presentation, convening interactions among relevant and interested parties and, in general, serving as a resource to Ontario institutions that choose to use them. This overlaps somewhat, but not entirely, with similar efforts by Contact North. eCampusOntario differs from Contact North by providing an online training program for educators, Ontario Extend, as well as access and evaluation opportunities to test new and emergent technologies (an Educational Technologies Sandbox), before scaling them through a shared-services model.

4. eCampusOntario supports a portal available to anyone interested in online learning. The eCampusOntario online portal retrieves institutional course information from the ONCAT database, in partnership with ONCAT, and then populates it within the eCampusOntario portal on demand and in real time. The eCampusOntario portal, like Contact North's, often directs students to the websites of individual institutions offering the course or program that is of interest to the student. However, the eCampusOntario portal has additional features that provide students with real-time information on seat availability, open resources, continuous enrolment and OSAP eligibility.

5. The eCampusOntario website offers a lot of data and statistics about its activities. It has incorporated targets within its strategic plan, focusing predominantly on participation in and uptake of its products and services by institutions and individuals. However, consistent with similar observations about Contact North, it is difficult to assess eCampusOntario's impact on learning and student outcomes. It is clear that the universities (more so than the colleges, it seems) appreciate the funding provided by eCampusOntario and its role in promoting digital learning. But it is unclear how much of the digital activity going on in postsecondary institutions now funded by eCampusOntario would have happened absent eCampusOntario's funds, supported instead by institutional budget allocations.

It is difficult to assess whether eCampusOntario is having the impact government wants on digital programming because the government's expectations are not always clearly articulated. For example, there was no substantive OER presence in Ontario prior to eCampusOntario's funding and advocacy. There is now. But has the take-up of OERs been more than we might have otherwise expected without this funding? Is the promotion of OERs a priority outcome for government? Is the return on the investment — which is largely out of government's control as it depends on take-up in the classroom — sufficiently compelling?

Like Contact North, many of the measures taken are descriptions of activities or inputs. But the funding of projects by eCampusOntario grants is generally not associated with expected results, such as a certain level of cross-institutional uptake of the course, or enrolment of a target number of students or evidence of seamless credit transfer to determine whether these objectives have been met. It may not be eCampusOntario's remit to collect this information, but this is the kind of data one needs to assess the impact of eCampusOntario's efforts and programs. Every project funded by eCampusOntario submits a final report, which is checked against deliverables and is a requirement for final payment. The question, as argued in this report, is whether the performance objectives set for these projects are those that are of the highest priority for government, and whether they are focused clearly on outcomes for students.

eCampusOntario is operating in the absence of an overarching, sufficiently focused strategy or plan for digital learning in Ontario tied to government objectives. In the absence of such a plan, eCampusOntario pursues, in a purposeful and strategic way, activities that it believes will do the most to promote and advance digital learning in the province.

eCampusOntario serves two masters — the government that funds it and the institutions that represent its shareholders. Given the makeup of its governing board, it is perhaps not too surprising that a nontrivial amount of its funding goes directly to institutions to promote the digital-learning developments and activities they desire. The fundamental question is whether these activities of eCampusOntario are consistent with the desires and inclinations of its funder, the government, or whether the government would like to see some of this funding directed to other provincial digital-learning priorities and goals. The answer to this question demands clarity from government and, subsequently, clear direction to eCampusOntario from government.

Advice and Strategies for Moving Forward

A Focused Government Plan

There is a high degree of digital-learning activity in the Ontario postsecondary system. Every college and university is engaged in digital learning, uses digital-learning technologies, or offers online courses and/or programs. In fact, we would venture to suggest that almost all courses and programs in the system incorporate some degree of digital or online activity, including those offered in the traditional classroom setting.

Although the degree of engagement and use of digital learning varies among the postsecondary institutions, there is every indication that the amount of digital activity will continue to increase. Institutional motivations for pursuing a deeper use of digital learning, as revealed in the 2018 National Survey of Online Learning conducted by the Canadian Digital Learning Research Association, vary from a desire to increase access and student diversity, to reducing costs and enhancing an institution's brand. So digital learning is not going away. Its use will increase.

The purpose of this review is quite focused. The charge to HEQCO was to explore the online space and ecosystem in the public Ontario postsecondary system and to offer suggestions about the role of government in supporting digital and online programming. Within this overall charge, we were asked to comment on the activities and contributions of the two major government-funded organizations in Ontario's digital world, Contact North and eCampusOntario.

As we noted at the outset, the digital-learning ecosystem in Ontario is loosely coordinated at best. It is a stretch to use the term "system" to describe it. If the advancement of government's role in digital learning is the intention, the first order of business is to clearly articulate the goals and outcomes government hopes to achieve from a digital-learning presence in the province. As we argued before, the essence of the plan is to link expanded digital-learning activity to public postsecondary goals.

These goals could include increasing access, better labour market outcomes, higher quality programming, greater institutional collaboration, better credit recognition or enhancing institutional sustainability. But the goals can't be everything. If we were to prioritize, we suggest that exploiting fully online digital learning to provide access to those who have difficulty connecting with or getting to traditional campuses is a particularly promising and high-priority lane.

Once these desired outcomes are stated, the digital strategy should then clearly identify the role of government, and set mandates aligned with these goals for any funded agencies or organizations the government tasks to deliver on its priorities. The goals should be associated with performance metrics that

are regularly measured to assess whether the policies, practices and funding allocated to digital-learning initiatives are in fact moving the province forward.

Given the too-often used recommendation of a study to recommend further study, we are a little sheepish to recommend the need for the development of a plan or strategy. But we do not believe that the current state of digital-learning interventions by the Ontario government will see any significant or meaningful coherence without a clear system plan that involves the relevant players and coordinates their activities. None of the players we see now have the mandate to develop such an overarching coherent plan on the government's behalf. The stimulus for the development of a digital plan can only come from the government.

We are not suggesting a lofty plan that reviews the online-learning literature or discusses in abstract ways what digital learning could be, or what happens in other jurisdictions. Rather, we are suggesting a very focused analysis that leads to a coherent provincial plan that serves the public interest.

Recommendation 1: Government should lead and work with relevant sector collaborators to develop an Ontario Digital-learning Plan and Strategy. That plan should:

- **Clearly identify the desired public goals and objectives of an expanded digital-learning presence in the Ontario public postsecondary sector.**
- **Keep the list short and focused. Whatever is not on that list government should leave to others to do and fund if they wish. Others will take over these roles if they see it in their interest. Not everything needs to be centrally driven and coordinated.**
- **Identify the performance measures that will be used to monitor progress toward these objectives.**
- **Review the mandates and activities of existing government-funded organizations and amend or refocus their performance objectives to align clearly with the public goals identified in the plan.**
- **Produce an annual report on the changes in digital learning in Ontario and on the outcomes achieved.**

Better Data

Ontario simply does not collect the right data to properly evaluate the impact of the activities and programs mounted on its behalf by Contact North and eCampusOntario, or to monitor progress toward desired goals and outcomes driven by provincial policies, funding or management of digital learning. In its overall postsecondary performance management and funding regimes, the government is moving to the use of outcome-based performance measures and Strategic Mandate Agreements (SMAs) tied to provincial objectives. The digital world is ripe for a similar move.

As we noted earlier, it would be entirely feasible to introduce reporting that would provide meaningful and useful data about digital learning. Identifying students who take digital courses or are provided services by provincial organizations, and tagging the data to their OEN, would allow some evaluation of the impact on outcomes such as graduation rates, skills acquisition and postgraduate employment. The point is that we will never have a well-understood or credible digital plan in Ontario unless it includes the ability to assess its outcomes.

Part of the uncertainty and confusion about the data we currently have comes from variability in the classification and definition of digital offerings. The Canadian Digital Learning Research Association conducts a Canada-wide survey of digital learning. It has worked with postsecondary institutions across Canada to derive definitions of digital learning. Ontario institutions use these classifications when reporting to the survey (See Appendix 2). We recommend their adoption throughout Ontario for any reporting purposes.

> **Recommendation 2: As it did with the SMA process, the government should develop a set of metrics and measures — the more outcomes-oriented the better — which it will use to assess digital learning in Ontario. To allow comparative analysis of outcomes, the current data reporting mechanisms through which institutions report to government should be included in this strategy, with the necessary modifications to identify digital activity.**
>
> **Recommendation 3: Ontario should standardize reporting about digital learning by adopting the definitions of digital learning used by the Canadian Digital Learning Research Association.**

Special-purpose Funding

On the fundamental question of what is the best role for government to play in promoting, managing and funding an expansion of online learning in Ontario, our commentary offers a continuum of possible roles.

At one end of the continuum, one could argue that the government has no special role or contribution in the advancement of online learning. Ontario provides its public colleges and universities with upwards of $5 billion in annual operating grants. Most of that flows as a general-purpose grant, which the institutions may spend, and do spend, as they see fit to achieve their teaching and research objectives. Among the many priorities institutions support with that money is a growing set of activities in digital learning. In that sense, for postsecondary institutions, digital learning is no different than the transition from blackboards to overhead projectors to multimedia classrooms, clickers in the classrooms, flipped classrooms, new science labs or any other infrastructure, technological or pedagogical advance that they adopt to better deliver their programming to students.

The argument is that digital has been integrated into the traditional classroom and is essential to the delivery of hybrid and fully online courses and programs. Digital has become established institutional business. Keeping abreast of the latest advances is established institutional business. Leveraging digital for

institutional competitive advantage is established institutional business. If institutions see something in the digital world as advantageous, they can, and will, adopt it.

At the other end of the continuum, government can choose to support digital learning as yet another of its special-purpose grants. Why would it do so? If the special-purpose grant money ends up underwriting initiatives and activities institutions could and would carry out in any case, then no dedicated fund is warranted. But if the special-purpose grant ends up motivating or steering institutions toward activities or practices that serve the government's objectives and the public interest, then it is warranted.

We stress that if government wants to motivate change with a special-purpose fund, it is not enough to articulate the provincial policy objective, even if it is embedded in a formal TPA. Commitment to the objective must be a precedent for any institution or entity gaining access to these funds. For example, if the government has the objective of using digital learning to develop scalable, flagship courses offered by a broad range of institutions with seamless credit transfer, then these parameters must be articulated as conditions necessary to the release of funding. Government should be comfortable leaving its money on the table if nobody bites, rather than eager to spend the entire allocation regardless.

Measurement of the resultant outcomes must also be incorporated into the design of the initiative, and then used to re-evaluate the investment. By outcomes we mean much more than an accounting of moneys spent or evidence of a product having been developed. We mean the measurement of meaningful outcomes for students: They gained access, secured mobility with credit transfer, acquired skills, graduated and did well in the labour market.

Based on all the discussions and advice we have had and received, we think it is important for the government to maintain a presence and continue to fund activities in digital learning. Aside from the signal value of that involvement (i.e., government sees digital learning as a priority) we are persuaded that we would see less innovation and experimentation around digital learning, slower growth in online programs or resources, and most importantly no means to address the objectives government desires with the removal of government funding.

The suggestion that any government special-purpose fund for digital learning be tied directly to a specific objective of government is not new. For example, government asked us to consider the potential use of online learning to achieve greater collaboration, sharing of resources and student mobility across the system. We note that when MCU created the Shared Online Course Fund for universities and colleges in 2013–14, clear objectives were articulated in this regard:

"To support the offering of in-demand high-quality shared online courses … to develop or redesign a number of scalable, shared online courses that will eventually form part of a suite of flagship courses ready to be offered by participating … institutions."

That fund eventually evolved into the New Program Development Fund administered by eCampusOntario. But the fact remains that six years later we have few reliable outcomes metrics to test whether the sharing and cooperation objectives embedded in the ministry's original proposal have been successfully achieved.

> **Recommendation 4: Government should continue to provide special-purpose grant funding to motivate the expansion and further development of digital-learning opportunities and activities. The program should be designed, as a precondition of funding eligibility, to steer institutions to advance government goals for postsecondary education in Ontario.**

Facilitating Access

Of all of the objectives government might wish to achieve with its funding, the argument we have made in this report is that the highest priority is improvement of access to disenfranchised Ontarians in rural and remote communities through fully online courses and programs.

If the delivery of fully online programming to remote communities is to be a priority, we note that students in these situations are exactly those students who often need the greatest assistance to succeed in an online-learning environment. A necessary correlate to more digital programming to remote communities is the need for a significant expansion of support services for these students to assist them in their online journey to completion and successful outcomes.

Contact North is the obvious agent to deliver on this priority of support through wraparound services. The provision of remote access is the historic root of Contact North's original mandate and still constitutes the core of its stated scope in the latest TPA with MCU. There are likely opportunities to fine tune and focus the mandate:

- Contact North has layered on — at the request of government — a presence in urban and southern Ontario. Given the density of the institutional presence in these regions, the role for Contact North here is less obvious.

- That said, the government could, if desired, engage Contact North to deliver fully online learning and learner supports to contribute to its rapid response strategy when there are plant closures and labour disruptions that result in workers needing help linking up with educational and retraining opportunities.

- Northern institutions themselves are located in some of the communities served by Contact North. The respective roles of Contact North and northern institutions should be revisited, discussed and recalibrated with an eye to optimizing partnership, efficiency and opportunity.

- Contact North is active in a number of First Nations communities, and the nature of its contributions should be subject to a discussion with those communities and with Ontario's Indigenous institutions.

Recommendation 5: Government should consider focusing its funding on supporting the creation, development, dissemination, accessibility to and delivery of fully online courses and programs specifically to address the objective of improving access to northern, rural and remote communities.

Recommendation 6: Government should work with Contact North to optimize its provision of support services for postsecondary students in rural and remote communities. These expanded activities can come from a refocusing of some current funds that support lower-priority activities or ones that duplicate similar activities mounted by other organizations or institutions.

Digital Infrastructure

Throughout our consultations we heard repeatedly about infrastructure barriers to online learning, particularly the limitations of bandwidth in some communities, perhaps the very communities of greatest concern to government. If a primary goal of expanded digital-learning activity is to bring more programming to rural and remote communities, then the government will need to ensure that there is adequate broadband internet access within these communities. No matter how extensive and sophisticated online offerings are in this province, they are of little use to communities that cannot access them because of digital infrastructure limitations.

ORION, the organization responsible for providing internet access to Ontario's education and health care sectors, features a network map that ends in Timmins, an area that is north but far from remote. If we are to deliver better IT services to remote communities to allow them greater access to digital learning, then achieving the "last 100 miles of connectivity" will require us to build high bandwidth access beyond current service perimeters. The locations of increased connectivity must synchronize with the plans for digital learning and assessments of student need emanating from MCU, other relevant digital-learning organizations and the most relevant postsecondary institutions.

The government has already announced a comprehensive Broadband and Cellular Action Plan, led by the Ministry of Infrastructure. It includes a focus on expanding broadband access to unserved and underserved communities. The Ontario Ministry of Education is also modernizing the delivery of online learning to give its students greater access to programming and educational opportunities no matter where they live in Ontario.

Recommendation 7: Government should incorporate within its digital infrastructure initiative, a multi-ministry study, involving the Ministry of Infrastructure, MCU, the Ministry of Education, ORION, relevant digital-learning organizations and postsecondary institutions to build better

internet connectivity to remote communities that are highest on the list to benefit from digital-learning offerings and developments.

Student Portal

As we noted before, students encounter several portals as they seek information about online courses and programs. The ones that rise to the top of a Google search most often direct students to individual colleges or universities; the portals that are maintained by Contact North and eCampusOntario are later in the search results and often direct students to the websites of the individual institutions anyway. ONCAT's transfer portal also features in the mix. If there is deemed to be value added in a provincial portal beyond the information provided on individual institutions' websites, then consideration should be given to a single portal maintained by one of the entities now engaged in that activity. ONCAT, which has a mature infrastructure for gathering course and program information, and already does so on behalf of eCampusOntario, may be a logical choice.

Recommendation 8: Beyond those maintained by the individual postsecondary institutions, the government should fund and support one official provincial portal that students can consult for information about digital-learning opportunities.

Supports for Institutions

What of the other assistance that eCampusOntario, and to a lesser extent Contact North, have provided to support the development of digital learning at institutions? This includes faculty training and pedagogical resources, course development, the assessment and adoption of new technologies and data analytics.

Throughout our consultations, we heard repeatedly about the complexities of creating online courses and of adapting new technologies, and that many institutions and their faculty (even those motivated to deliver their teaching online) are underskilled in creating and delivering good online programming. Despite decades of digital activity across campuses, institutions told us there remains an unmet need to support the design, development and management of digital content.

Should the government underwrite this important activity? Earlier in this report we made the argument that in Ontario, institutions have primary responsibility for the quality of their programming, including necessary inputs such as the provision of technology, expertise in course development and innovation in pedagogy. This is the case in traditional (on-campus, lecture-style or hands-on) learning environments: Government's focus is on measuring the resultant student, learning and labour market outcomes, and in motivating institutions to improve them.

eCampusOntario provides these kinds of pedagogical and developmental supports in the digital realm, and it does so using special-purpose grant money provided by government. Institutions, particularly universities,

told us that they look to — and to an extent depend on — eCampusOntario for these services, which supplement and enhance the supports they provide at their own home campuses. Based on what we heard from multiple institutions, we conclude there are economies of scale and a sharing of best practices to be had that would benefit institutions.

Would the sector, through collective action, continue to fund eCampusOntario or Contact North, or an analogous shared resource of its own design, to provide these services if the government discontinued its special-purpose grant funding? There is no guarantee that this would be the case. In the annual competition for institutional budget dollars, the extent to which improvement of digital programming would be a priority is unclear. There is a risk, therefore, that this kind of centralized resource would die away.

We can therefore imagine a continued presence for government funding to provide "quality" supports in the digital realm, such as program-development funding, pedagogical support and research into best practices and new technologies. However, in accordance with our earlier principles, this should not just be support for things institutions would or should do in any case, individually or collectively, with their general-purpose revenues. The government should only be active in this domain if it can be so in pursuit of its articulated objectives.

If, therefore, the government wishes to maintain a presence in supporting fully online courses for the purposes of access; or improve definitional rigour around the collection of data about digital activity and its outcomes; or enhance information, mobility and credit transfer in the digital realm for students, then we propose that any funding it releases for institutional supports be tied to these public policy objectives and be associated only with projects and initiatives that further those objectives.

> **Recommendation 9: There will be an increasing need to support institutions and faculty in the design, development and delivery of digital programming. There may be a role for government, tied to meeting its overall objectives. Government, in consultation with institutions, should consider the optimal way of attaching any such funding support to the attainment of its access, outcomes measurement and system-design goals in the digital realm.**

Concluding Thoughts

Some may argue that this report fails to answer all the questions implied within the government's charge to us. Others will observe that our report does not offer specific funding recommendations, such as precisely what activities or organizations should receive more or less funding and for what purposes.

We have argued that the government must take the first step by further examining and winnowing what it hopes to achieve with digital learning in Ontario. Only after a limited number of goals and objectives are clear, can work begin on designing a system, with the required set of organizations and mandates for each of these entities to make their best contribution toward meeting the government's goals.

The charge motivating this report is the first articulation by government of system and public goals for digital learning. We are comfortable commenting and advising on the themes the government has tabled — access, quality and system design. But we do not presume to usurp the government's role in refining and articulating its requirements, but rather to assist it with the advice we have provided.

We would like to emphasize again that even after the government has shaped its objectives and the outcomes it wishes to achieve, it will be difficult to assess the roles and contributions of its agencies and the efficacy of its funding programs without better data. Our report suggests how this data can be collected and used, especially when tied to goals and outcomes. The current government's move to outcomes-based performance measurement is the right strategy for collecting the much-needed data.

Our report is best viewed as providing suggestions for how to advance digital learning in Ontario and how to best engage the current organizations and institutional players to obtain the greatest benefit and impact from an expansion of the use of digital learning in Ontario. It provides the base and focus for forward planning. We hope you find it useful.

Appendix 1: Parties Consulted

Alpha Plus

Canadian Digital Learning Research Association

Colleges Ontario

Contact North

Council of Ontario Universities

D2L Corporation

eCampusOntario

Lakehead University

Northern College

Ontario Council on Articulation and Transfer

Ontario Ministry of Colleges and Universities

Ontario Undergraduate Student Alliance

Appendix 2: Categories of Digital Learning

Distance education courses: Distance education courses are those where no classes are held on campus — all instruction is conducted at a distance.

Online courses: A form of distance education where the primary delivery mechanism is via the internet. These could be delivered synchronously or asynchronously. All instruction is conducted at a distance.

Blended/hybrid courses: These are courses designed to combine both online and face-to-face teaching in any combination. For the purposes of this questionnaire, we are interested in those courses where some, but not all, of the face-to-face teaching has been replaced by online study.

Source: Canadian Digital Learning Research Association (2018). Tracking Online and Distance Education in Canadian Universities and Colleges.

Higher Education Quality Council of Ontario

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