Table of Contents

Groundwork for a Microcredentialing Framework 1
Introduction 1
Background & Context 2
  Toward a Definition 3
  Pacing with the Evolution of Employment 4
  Beneficiaries & Stakeholders 5
Sectoral Scan 6
  Governmental Interest & Responsive Action 6
  Funding for Microcredentials 8
  Standardization & Quality Assurance 8
  Iterative Advancement 9
Indigenous Institute Perspectives & Considerations 10
  Indigenous Pedagogies & Methodologies 10
  Indigenous Learners & Teacher Professional Development 10
  Institutional Mandates & Relationship-Building 11
Key Pathways & Processes 12
  Recognition of Microcredentials 12
  Quality Assurance of Microcredentials 13
Obstacles & Opportunities for Ontario’s Indigenous Institutes 13
  Funding & Development Challenges 14
  Available & Pre-Existing Supports 15

Virtual Learning Strategy Foundations 16
Introduction 16
Background, Definitions & Context 16
  Key Concepts & Approaches 18
  Technology and the Promised Transformation of Education 20
  Persistent Digital Inequality in Education 21
Sectoral Scan 22
  Structural & Acquired Barriers 22
  The “New Normal” 23
Pedagogical & Methodological Considerations 25
  Virtual Learning Assessments 27
  Learner-Centred Design (and Support for the Design Process) 27
Sectoral Strategies as Signposts 29
  Bridging to Current eCO VLS Projects 31
  Implementing Virtual Learning 32

Recommendations & Applications 33
  Recommendation 1: Leverage Drivers & Benefits of e-Learning 33
Recommendation 2: Address the Interaction of Barriers to
Technological Access, Asset Availability, and Digital Literacy

Digital Literacy

Recommendation 3: Revisit (and Revise) Teaching Staff Engagement, Training, and Support Strategies

Technology Skills
Digital Pedagogy Models
Other Knowledge Areas

Recommendation 4: Augment Organizational Resources for e-Learning

Student Supports
Technology Resources
Including Voices from the Teaching & Learning Community

Recommendation 5: Invest – Strongly – in Educational Design

Indigenous Learner Experience Design
Mobile Device Considerations
Open Educational Resources (OERs)

Recommendation 6: Develop Robust e-Learning Assessment Strategies

Recommendation 7: Explore Entrepreneurial Approaches

Recommendation 8: Lay the Regulatory Foundations

Virtual Learning Guidance: PEQAB’s Draft Standards & Benchmarks for Online Programming
Microcredentialing Guidance: eCO’s Open Competency Toolkit and Principles & Framework

Recommendation 9: Advocate for True Inclusivity in e-Learning Frameworks and Policymaking

Embedded Assumptions: Competency & Technology
Representation and Parity of Inclusion
Economic Drivers & Funding Norms

Additional Resources & Recommended Readings
Groundwork for a Microcredentialling Framework

INTRODUCTION

To date, Indigenous Institutes (IIs) have not offered microcredentials as described by the ministry, but some IIs do offer programs that are similar in nature: Proposal-based, and focusing on skills development and work-integrated learning. The Indigenous Institutes Consortium (IIC) and its member Institutes have been discussing the possibility of developing a framework on microcredentials that would support the sector as a whole, and work in a concrete way so that students and employers would both benefit. Developing a framework and a common definition could also allow for microcredentials to be offered across the sector and support recognition, transferability, and scalability. For its part, the Indigenous Advanced Education and Skills Council (IAESC) is positioned to support the quality assurance of microcredential programs. The Council believes that an environmental scan could support the sector and would be an important piece to ensure that microcredentials and work integrated learning programs are recognized.

The Indigenous Advanced Education and Skills Council (IAESC) is positioned to support the quality assurance of microcredential programs. The Council believes that an environmental scan could support the sector and would be an important piece to ensure that microcredentials and work integrated learning programs are recognized.

Successful microcredentials and work-integrated learning requires collaboration and data sharing across the Indigenous Institutes sector, colleges and universities, community involvement, the Ministry of Colleges and Universities (MCU), and the Ministry of Labour, Training and Skills Development (MLTSD). Now more than ever, students need an income, and, in some cases, long-term programs are no longer feasible. Microcredentials and work-integrated learning would allow flexibility for students to upgrade their skills while earning money and provide a better environment to maintain a work-life balance.
BACKGROUND & CONTEXT

Neoliberalism, the knowledge economy, and globalization combine to exert considerable influence on education systems.¹ Within this context, “educational institutions [must] adapt to competitive market pressures.”² The move towards microcredentials thus reflects “(1) administrative urgency to unbundle higher education curricula and degree programs for greater efficiency and profitability and (2) a renascent movement among industry and higher education leaders to reorient the university curriculum towards vocational training.”³ Unsurprisingly, then, “support for microcredentialing is particularly strong among higher education executives, administrators, and financial/tech-oriented staff who appreciate its value as an innovative profit center.”⁴

Microcredentials are a form of alternative credential, which are “competencies, skills, and learning outcomes derived from assessment-based, non-degree activities and align to specific, timely needs in the workforce”.⁵ This type of digital certification “provides valid evidence of achievement of specific knowledge, skills or competences after going through a structured learning experience. Micro-credentials can be shared on social media and verified by others, including employers.”⁶

Most microcredential offerings to date have emerged in IS/IT (esp. digital transformation), health (esp. occupational health & safety), and business/finance (esp. leadership) – the spheres most immediately and profoundly impacted by COVID-19 economic “coping responses.” By way of contrast, Information Systems and Information Technology were, less than a year ago, almost singular in their domination of the microcredentials market – at greater than 75% – since their sector is, almost by definition, constantly (and rapidly) evolving.

---

³ Ralston (p. 83).
⁴ Ralston (p. 83).
### Toward a Definition

Alternative credentials are also known as microcourses, badges (digital badges, web badges, open badges), micro-certifications/micro-certificates, or mini-certifications/mini-certificates. When these courses are “stacked” they are referred to as nano-degrees/mini-degrees or micro-Master’s. Some well-known providers have also branded their stacked offerings and given them copyrighted names, such as Coursera’s MasterTracks, edX’s Xseries, or Athabasca’s PowerED. To match terminological inconsistency, there is also no uniform, or even “most common” delivery modality for microcredentials – although the prioritizing of “self-paced study” means that most offerings are either fully or near-fully remote/virtual, and asynchronous learning is a common feature.

An actual, universally shared definition of microcredentials is lacking. Instead, they tend to be identified by a cluster of core characteristics, including:

<table>
<thead>
<tr>
<th><strong>short duration</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>typically 24-42 hours</td>
</tr>
<tr>
<td>less than 12 weeks’ duration</td>
</tr>
<tr>
<td>great variety in practice - not standardized</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>modular &amp; stackable</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>add up a larger credential (sometimes on the OQF)</td>
</tr>
<tr>
<td>stacking can be upward/forward or lateral</td>
</tr>
<tr>
<td>customizable for individual career plans</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>self-paced learning</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>learners engage &amp; advance on their own schedule</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>low barriers to admission</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>open to anyone but usually intended for those seeking new or modified employment</td>
</tr>
</tbody>
</table>

**employment oriented**
- typically confer skills valued in the private-sector labour market

**“competency-based learning”**
- builds a specific skill or capability in a particular field
- compare with general "soft skills"

**digitally credentialled**
- completion proofs kept in a digital wallet (e.g., social media badges, icons, etc.)
- compare with traditional "parchments"

The skills microcredentials confer can be vertical (i.e., adding depth to an area of specialization), transversal (i.e., broad but related skills leading to more employment opportunities), or value-added (e.g., an HR generalist earning a microcredential in coaching). Although microcredentials are advertised as open to any learner, they are often designed to meet the specific needs of:

- the recently unemployed
- the newly or chronically underemployed
- those needing to upskill or reskill (to build “in demand” competencies)
- “gig” (short-term, on-call, freelance) workers
- entrepreneurs & sole proprietors
Pacing with the Evolution of Employment

Increasingly, traditional degrees, diplomas, and other long-term credentials are seen as base qualifications – so-called “entry-to-practice” qualifications – rather than indicators of sufficient and current competency and/or experience. This perspective accompanies a switch from viewing postsecondary education as a “runway” to lifelong employment to seeing learning as lifelong: either periodic/punctuated or continuous. Surprisingly, some professionals no longer require the credential that has been the entry-level qualification for decades. For example, in both risk management and accounting a diploma or degree is not always necessary to secure a job. Evidence of the range of impact of this shift is plentiful on recruitment platforms like Indeed, ZipRecruiter, LinkedIn, and Glassdoor. Job seekers listing their availability on these sites are being pressed to provide skills-based portfolios instead of traditional resumés or curricula vitae, while employers or recruitment firms are executing candidate searches based solely on listed experience(s) and capabilities. UpWork, in fact, recently reported that up to 70% of the platform’s sought-after skills are new at the time stats are pulled, and very few are tied to a diploma or degree. Relatedly, employers are increasingly seeking “work-ready employees,” while traditional educational pathways have been critiqued (sometimes for decades) for the lack of provision of job-critical experience, for example work-integrated learning opportunities, placements, internships, co-ops, etc.

The development of microcredentials, and other forms of alternative credentialing, is also driven by the development of what has become known, colloquially, as “the precariat.” This group consists of individuals lacking the seven forms of labour-related security:

- labour market security
  - adequate income-earning opportunities

- employment security
  - protection against arbitrary dismissal, etc.

- job security
  - ability to obtain/retain employment
  - opportunities for upward mobility

- work security
  - limits on working time
  - protection from accident & illness

- skill reproduction security
  - opportunities to gain skills or employment training
  - opportunities to make use of competencies

- income security
  - income stability protection through minimum wage, wage indexation, social insurance, etc.

- representation security
  - collective labour market voice, such as trade unions

---

In recent years, the precariat is exemplified by the emergence of the “gig economy.” The gig economy is growing in Canada, with an increase from 5.5% of all workers in 2005 to 8.2% in 2016. As the report notes, this growth affects both men (from 4.8% in 2005 to 7.2% in 2016) and women (from 6.2% in 2005 to 9.1% in 2016), and is and driven by the growth in the percentage both of gig workers who earned no wages or salaries (T4 income) and of gig workers who combined gig work with wages or salaries. Nevertheless, gig income remains low at a net income $4,303 and disproportionately affects workers in the bottom 40% of the annual income distribution, who are twice as likely to have sporadic and precarious employment. Although gig work is typically temporary, about a quarter of such worker entrants stay in the sector for three or more years.

**Beneficiaries & Stakeholders**

Proponents of microcredentials “hang their hat” on the idea of multiple and overlapping benefits to all three of the principal stakeholder groups (see table, below). Following from these justificatory narratives, though, there remains a need to explore exactly how the potential/promised benefits will be operationalized and harmonized, so that important gains may actually be realized — and realized in a way that drives toward greater parity of educational opportunities and outcomes across the postsecondary sector.

<table>
<thead>
<tr>
<th>Learner Benefits</th>
<th>Provider Benefits</th>
<th>Employer Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>• quick-turnaround reskilling &amp; upskilling</td>
<td>• new revenue streams &amp; quicker returns on investments</td>
<td>• ability to directly address organizational skills lags &amp; gaps</td>
</tr>
<tr>
<td>• confidence that offerings provide highly current, relevant competencies</td>
<td>• lower risk viz. experiments in teaching &amp; learning innovation</td>
<td>• increased capacity/reduced reliance on external expertise</td>
</tr>
<tr>
<td>• refreshing older or outdated accomplishments</td>
<td>• the ability to leverage local expertise to provide unique offerings (e.g., Indigenous teaching &amp; learning, EDDI, etc.)</td>
<td>• more efficient recruitment (“competency-based hiring”)</td>
</tr>
<tr>
<td>• self-positioning as a “lifelong learner”</td>
<td>• tapping into a new market that’s booming — and increasing in terms of support/recognition</td>
<td>• improved employee retention</td>
</tr>
<tr>
<td>• convenient, “on-demand learning”</td>
<td>• pacing with (ongoing) paradigm shifts in educational landscape</td>
<td>• quick return on training investments</td>
</tr>
<tr>
<td>• education cost savings &amp; lower student debt (while still receiving tax credits)</td>
<td>• new/strengthened relationships with employers, local organizations &amp; professional bodies</td>
<td>• stronger relationships with local providers</td>
</tr>
<tr>
<td>• a self-directed, highly personalized program of study</td>
<td>• recruiting/retaining new learner pools without significant increase in teaching burdens</td>
<td>• ability to create (and action) an organizational training agenda</td>
</tr>
<tr>
<td>• the ability to work with multiple providers (i.e., not being limited by one provider’s Calendar)</td>
<td>• lowered redelivery burdens</td>
<td>• more efficient uptake of new technologies &amp; processes</td>
</tr>
<tr>
<td>• concrete recognition of learned skills &amp; competencies</td>
<td>• participation in a community-wide and/or regional training agenda</td>
<td>• lowered barriers to market entry &amp; participation</td>
</tr>
<tr>
<td>• ePortfolio creation &amp; maintenance</td>
<td></td>
<td>• create opportunities for learners</td>
</tr>
<tr>
<td>• freedom to explore new work opportunities without complex admissions processes</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

SECTORAL SCAN

COVID-19 drove many pre-existing trends in employment-focused education both forward (increasing the sense of urgency and pace of adoption) and into the limelight (increasing visibility and creating new opportunities for discussion). Three facets of the pandemic were especially powerful in this regard: The severe employment shocks that coursed across Ontario; the rapid transition to labour/time-saving tech and remote work across all sectors that continued operations; and the relative opening up of the schedules of remote workers, many of whom opted to invest in online training opportunities. MOOCs saw a massive uptick in registrations in 2020: 32 million learners enrolled in the first seven months of the pandemic, including 644,000 Canadians, while April 2020 registrations alone exceeded all 2019 figures.

This sudden growth has had two effects that disadvantage postsecondary institutions, especially Indigenous Institutes, in Ontario: a lack of “hard data” for planning purposes, as standards, research, and the construction of information repositories (including a centralized list of Canadian offerings) lags behind, and market saturation with new actors and high-visibility brands (including, for example, Harvard, LinkedIn, etc.), creating new and aggressive competition. The definition of a microcredential itself has yet to “settle,” which will have downstream implications for all policy development, approvals processes, funding opportunities, and quality assurance pathways. As with the broader, global definition, all that regulatory actors are able to provide for the Ontario context is a cluster of characteristics, including:

- a short duration (“rapid upskilling”)
- offering learners complementary skills to existing studies or work experience
- building toward clear labour market outcomes
- utilizing a skills-based approach
- standing as a component of or supplement to an existing credential

The disruption of the postsecondary system was certainly exacerbated by the pandemic – but it began long before COVID-19. Individuals are increasingly moving in and out of learning, rather than advancing along traditional trajectories, learning new skills as they become relevant. In response, existing providers are striving to be as flexible and adaptable as possible. Microcredentials also present an entry-point into the educational system generally, with the ability to reach learners who might otherwise have been reluctant to enter/re-enter.

Governmental Interest & Responsive Action

The Ontario government, as with virtually all governments, is heavily investing in microcredentials as post-pandemic economic recovery strategy, including focusing on (a) increasing development and delivery capacity, and (b) growing the microcredentials marketplace. Recent ministerial announcements on microcredentials have added further justifications for these commitments, including protecting Ontario’s reputation as a “global leader in education” and its postsecondaries being “transformative trailblazers,” as well as the ongoing, and now accelerating, erosion of lifetime-permanent career pathways for Ontarians. Accordingly, the provincial drive has been toward restriction of the definition to demonstrated labour market-relevant competencies, as determined through actual consultations/partnerships with employers. The Ministry’s intention is to address three economic imperatives:

- reinforcing existing jobs through upskilling
- job creation through reskilling
- meeting COVID-related or other community needs
As part of the fall budget commitment, the Ontario government has made the following pledges:

- Development of an online portal, serving as a reference point for individuals interested in looking at microcredentialling opportunities across the entire sector (currently in the logistics phase, as the government explores virtual spaces).
- Funding to incentivize the development of new microcredentials (announced April 23, 2021 as the Ontario Micro-Credentials Challenge Fund).
- Increasing awareness, supporting the conversation as it merges with the common vocabulary of education (including how information can be accessed to improve awareness).
- Expansion of student funding, specifically OSAP (currently in the inventorying phase, per queries distributed to the IIs).
- An exploration of potential wraparound supports.
- Launch of “virtual passports” to replace traditional parchments, etc., (early stages underway, as this is a longer-term goal).

eCampusON, the Ministry’s major partner in this initiative, identifies its own imperatives in microcredentialling as:

**creating choice**
- learners can follow their interests, skills, needs, etc.
- employers can fill priority gaps in their workforce

**staying nimble**
- increasing capacity to pivot toward rapidly modernizing or emerging sectors
- "nimbleness" ensures relevance

**opening doors**
- supporting delivery of credits that are funded, mobile, stackable, delivered in flexible formats, and that evolve with the learner

eCampusON has been working for some time on building a connected microcredential ecosystem, including a common framework and community of practice. At present, this initiative invites any Ontario postsecondary to join and be part of the foundation-laying activities. They are also pursuing standardization activities through the draft framework, supporting recognition and student mobility.
Funding for Microcredentials

The 2020 Ontario Budget saw a $59.5 million investment in microcredentials over three years, including supportive modifications to the Ontario Student Assistance Program (OSAP) and competitive grants for the development of specific new credentials. Ontario is currently one of the only jurisdictions in the world to provide learner financial assistance for microcredentials, and is currently the only one in Canada. In January 2021, Ontario’s Indigenous Institutes became OSAP-eligible, a convergence of opportunities that stands to place IIs on equal footing with their mainstream counterparts, in terms of capacity to engage in the emerging microcredentials market.

Program costs for learners vary, depending on the recognized market value of the skill(s) being fostered, the size/scope of the learning engagement itself, and the perception of provider’s “brand” value. On average, Ontario learners are currently paying between $400 and $800 for a single microcredential, with costs accruing as these standalones stack or are earned as a suite.

Standardization & Quality Assurance

Some sectoral bodies were invested in microcredentials prior to the recent push for recognition and standardization, in most cases through a dedicated working group. These individualized explorations included:

- The Ontario College Application Service (OCAS), which was working on a registration/recognition system
- eCampusON, which was working on a framework
- The Council of Ontario Universities (COU), which was working on a microcredentials typology
- Colleges and Institutes Canada (CiCAN), which was working on a national framework
- Colleges Ontario, which was working on an independent framework for colleges

A key logistical challenge was that all of the above work had been going on in isolation. The role of the Ontario government, accordingly, emerged as that of coordination, “gelling” the various activities underway and identifying shared priorities (including mobility between and among sectors) analyzing the systems-level picture from a leaner perspective. Further complicating the recognition and accreditation picture is that microcredentials are currently offered by an incredibly diverse array of providers, including:

- post-secondaries
- MOOC providers
- private companies
- non-profits
- training organizations
- consortia
- professional associations
- IBM, RBC, Google, Amazon, Siemens, Microsoft, etc. - providing both employee & supplier training
- groups of any of these listed providers
Notably, apprenticeship skills-building offerings are currently considered “out-of-scope” for official (governmental) certification/recognition as microcredentials in Ontario. The skills training system in the trades includes Training Delivery Agents (TDAs), which constitute as separate regulatory approvals process. At present, the government intends to allow the dedicated apprenticeship branch to strategize microcredential pathways in its jurisdiction. The Indigenous Institutes have been informed that microcredential offerings in the skilled trades may come back into scope at a later time; at present, the focus is limited to colleges and universities. Strategically, the Ministry of Colleges and Universities is committed to working with the Ministry of Labour, Training and Skills Development, to set a foundation for lifelong learning. This would include rapid skills pilots, with eCampusON contributing to future activities.

Iterative Advancement

The past year of academic programming was one of the most disrupted – and disruptive – in the history of Ontario’s postsecondary sector. The record-breaking attendance at eCampusON’s annual Microcredentials Forum, which saw 500 people presenting and participating, evidences the mixture or apprehension and optimism that dominates the current climate. Most of the provincial response involves short-term-horizon actions and planning, acknowledging the unfamiliarity of this type of policy work for MCU employees, and the correlate inability to assume a correct course forward. Instead, regulatory agencies, policy bodies, and accreditors will need to adjust course as they go, and have pledged to do so in collaboration with both employers and postsecondaries. Beyond the rubric of economic recovery, the Minister has announced an intention to normalize microcredentials on the educational landscape. Unsurprisingly, then, the current phase of “rolling out while still figuring out” will be multi-year, with iterative phases both catalyzing and responding to changes as the pandemic recedes and Ontarians begin to determine what the post-COVID provincial operating environment (both in terms of education and employment) looks like.

From the MCU’s perspective, the emergence and rapid growth of microcredentials forced agencies to look at credentials differently, while pushing concerns like quality assurance, transferability and mobility, PLAR, etc. to the forefront. Broadly, the current environment has catalyzed a different interactional mode between governments and educational institutions. Work in/on these areas is just beginning and perspectives and approaches will almost certainly evolve – even radically.
INDIGENOUS INSTITUTE PERSPECTIVES & CONSIDERATIONS

Being present at the visioning and inception of microcredentials represents an unprecedented synchronous inclusion of Indigenous epistemologies and pedagogies at the initial, decision-making stage, rather than the post hoc reconciliation of approaches or perspectives that has thus far been practically necessary. This could well mean the difference between Indigenous and Indigenized standards and benchmarks in the emerging quality assurance process. The profound switch to competency-based learning and assessment itself represents an environment in which cultural standards and practices could be placed centrally from the beginning.

Indigenous Pedagogies & Methodologies

Globally, there has been truly progressive work done through microcredentials in other Indigenous educational jurisdictions, opening up acknowledgement of competencies and understandings that other forms of study can and have historically overlooked. Recognition of specialist knowledge that currently exists adjacent to or beyond the Ontario Qualifications Framework and the offerings built to the OQF is one, very real possibility. This means that Ontario may be on the cusp of a mechanism for non-comparative, non-derivative epistemic bridging between, for example, academic research and Indigenous modes of knowledge building and community scholarship. Microcredentials also hold the potential to open up new avenues of support between Indigenous educational institutions and Indigenous knowledge economies. These include emerging as well as established community development sectors, some of which are latently or recursively embedding Indigenous language, knowledge, and culture because the opportunities to do so are now emerging in strength (so for example: green energy, community health and healing modalities, Indigenous food systems resurgence, holistic impact assessments, sustainable housing and sustainability writ large, etc.). Microcredentials, then, are not just about labour market drivers and lowering barriers to labour market entry or upward mobility for Indigenous learners; they could also be about the iterative co-development of local economies and local education in Indigenous communities. More research in both of these areas is critical, in order to yield potentially time-delimited opportunities that set broader, more equitable foundations for the future.

Indigenous Learners & Teacher Professional Development

The World Indigenous Nations Higher Education Consortium, among many others, has underscored that Indigenous nations’ views of student success are based on a birth-to-death educational continuum. This very much describes the commitment of Indigenous Institutes to lifelong learning and a diversity of community-responsive programming; to academic calendars that recognize and accommodate community structures and seasonal rounds; and to the fact that delivery is tailored to student needs to an extraordinary extent (considering that a sizeable contingent of students at Indigenous Institutes are part-time or off-schedule learners). Accordingly, compressed and modular programming have been a Third Pillar interest, if not an outright need, for some time – but funding, and future funding formulas, have remained a black box. Microcredentials may offer a pathway to funded, compressed curriculum delivery that Indigenous learners can equitably access. This compressed programming opportunity is also a modular programming opportunity – a non-linear, rhizomatic approach to the aggregation of educational achievements where the learner’s intellectual self-determination can be supported at every stage. This positions microcredentials as, at least potentially, very much in line with Indigenous pedagogies. These, and other synergies should be explored.
Within microcredential initiatives there appears to be space for real innovation in multiple spheres, particularly in Indigenous learner experience design and in differentiated assessments. On the teaching side, microcredentials could be a real support for Instructor professional development, and measures to ensure the currency of knowledge, especially in Indigenous language instruction. There are potential opportunities to approach “best practices” in Indigenous pedagogies as a sharing of successes, rather than the importation or adaptation of methods that arise from other linguistic and social contexts. The IIs’ instructional staff have tremendous success by virtue of particular skills in student engagement and in knowledge-building as a relational activity. Cutting-edge methods are always emergent, making sharing a powerful protocol – the Indigenous Institutes are uniquely poised to offer these kinds of engagements as microcredentials.

### Institutional Mandates & Relationship-Building

Indigenous Institute programming often sits uneasily in highly siloed educational environments, and the potential for microcredentials to deconstruct and remix those bounded spaces is very promising. Such activity would mean blurring the lines between courses within degrees, diplomas, certificates, and professional development or continuing education programs; but it would also entail reconceptualizing partnerships and looking for a complementarity of capacities, recognizing that IIs are ideally positioned to provide certain portions of multi-institution credential stacks – specifically, those elements that they can deliver uniquely and excellently. These would include content like cross-cultural acumen, Indigenous applications and/or perspectives on particular job skills, land-based learning, Indigenous language instruction, Indigenous teaching and learning, shared (and unshared) histories, etc.

A final area of interest is the complementarity of microcredentials and the unique “dual” quality assurance mandates in Ontario’s Third Pillar. These mandates arise from and respond to, first and foremost, the local community. The pending official entry of microcredentials on the postsecondary landscape could allow for even higher, and even more highly situational community responsiveness, in alignment with traditional knowledge systems. The priority for Indigenous Institutes has always been that community systems continue to function, and that robust avenues are found for acknowledging and bringing in Indigenous pedagogies. The promise of microcredentials in this task, in particular, is considerable, and worthy of substantive, detailed investigation.
KEY PATHWAYS & PROCESSES

Microcredentials are traditionally non-credit offerings, but this is changing rapidly, particularly in the current landscape of post-pandemic economic recovery. The initially low recognition and positioning of microcredentials is attributable to longstanding credential hierarchies and low (to no) funding for continuing education offerings. The devaluation of microcredentials, when seen as part of continuing education, has followed provincial structures in which student financial aid and institutional operational funding supported credit, but no not-credit offerings (except through targeted grants). This pre-existing bias can also be seen in the challenges surrounding Prior Learning Assessment and Recognition (PLAR); Canada is also one of the few countries without a national mechanism for recognizing non-credit learning in credit programs.9 Today, however, Ontario has expressed a commitment to fitting microcredentials into a the credential system as offering of equal merit, meaning that these courses will need to interact with every facet of the education/skills recognition architecture, including the Ontario Qualifications Framework (OQF). That being said, a system for (a) quality assuring and (b) recognizing and recording earned qualifications is still in development. Available information concerning progress on these two fronts is summarized below.

Recognition of Microcredentials

There are now 598 microcredentials recognized for OSAP funding, 36 of which launched via pilot projects funded through eCampusON. Many more courses were put forward for recognition but did not qualify, making an understanding of the relevant criteria especially important. At present, Indigenous Institutes may continue to submit microcredentials for MCU review and approval for OSAP eligibility, up to July 30, 2021. Following this deadline, a new procedure, and possible new criteria, will be distributed by the MCU. Currently, a program of study for which individuals may be eligible to receive a microcredential grant or micro-credential student loan is characterized as:

- consisting of one period of study less than 12 weeks in length;10 and
- passing a ministry evaluation of labour market relevance and employer/industry support.11

Note that submitted microcredentials, even in the absence of approval for OSAP support, will be entered into a provincial inventory.

Indigenous Institutes do not typically follow the mainstream academic year/cycle, making the MCU’s determination of July 31 as a standard “cutoff” problematic. Further, microcredentials are often offered on a continuous intake basis, particularly in cases where the delivery modality is asynchronous. The normativity of self-directed study also complicates the determination of the “12 weeks’ duration” criterion. In responding to these determinative factors, the “packaging” of the proposed program should present an idealized learner engagement scenario, in which a “typical” student completes the course of study in a standardized format, at a conventional rate (for example, university courses are estimated at 3 in-class hours per week). Caveats to this effect can be submitted with the application materials.

---

9 Compare with the US, which houses all of the National College Credit Recommendation Service (National CCRS), the American Council on Education (ACE College Credit Recommendation Service — CREDIT), and the Center for Lifelong Learning.

10 Pursuant to section 7(1) of Ontario Regulation 768/20 (Ontario Student Grants and Ontario Student Loans for Micro-Credentials) under the Ministry of Training, Colleges and Universities Act.

11 Based on information provided through Column L and Column O of the MCU’s Micro-credential Program Inventory Template, distributed to Indigenous Institutes for completion.
Quality Assurance of Microcredentials

Harmonized skills and competency language, under a common framework, are necessary cornerstones of an educational credential quality assurance system—without them, learner mobility and credential portability are substantively at risk (particularly in a weak mobility environment, which is the case in Ontario, where the “recognition market” is further complicated by the bigger players and early adopters protecting their investments and interests). However, at present, even these initial pieces are missing in the case of microcredentials. The Indigenous Education Branch has committed to working with the Indigenous Advanced Education and Skills Council on quality assuring microcredential offerings from the province’s IIIs, as well as continuing to work directly with Ontario’s Indigenous Institutes. Given the precedent of release of handbooks for baccalaureate programs, though, predictions about the near-future availability of microcredential accreditation materials, through IAESC, are not optimistic. No alternative pathway currently exists, either, as microcredentials bridge regulatory siloes and present an unprecedented challenge to the compartmentalization of regulatory bodies.

OBSTACLES & OPPORTUNITIES FOR ONTARIO’S INDIGENOUS INSTITUTES

Embracing microcredentials requires an “ecosystemic approach,” meaning that all academic and corporate services operations must be taken into consideration, and possibly adjusted to accommodate the specific demands of the rapidly evolving postsecondary landscape. These challenges can be mapped as follows:

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Business Operations Effect</th>
<th>Academic Planning &amp; Delivery Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater data-gathering demands in support of situational responsiveness.</td>
<td>• environmental monitoring must be continuous, targeted, and embedded</td>
<td>• must centre &amp; vastly augment cyclic program review activities • currency &amp; competitiveness of all offerings demand regular revisitation</td>
</tr>
<tr>
<td>Breakdown of traditional “siloes.”</td>
<td>• imperative to harness stacking of microcredentials to increase enrolment &amp; retention</td>
<td>• need to comprehensively map laddering &amp; bridging, develop stacking potential, and creatively link programs • practical linkages must be built or reinforced between different academic departments/areas</td>
</tr>
<tr>
<td>Foundational modifications to records and record-keeping.</td>
<td>• credentials awarded can be time-limited &amp; revocable</td>
<td>• digital portfolios/badges must replace parchments, etc. • a new credential tracking system is in development; will require significant time and resources to learn &amp; adopt</td>
</tr>
<tr>
<td>Change in thinking about new program opportunities.</td>
<td>• need to reconcile what IIIs do uniquely with what employers need specifically</td>
<td>• blurring of traditional boundaries (credit/non-credit, college/trades/university/continuing education) challenges typical academic administrative activities</td>
</tr>
<tr>
<td>Paradigm shift in learner competency evaluation.</td>
<td>• affirmed competencies must be legally defensible</td>
<td>• pivotal reorientation of assessment strategies • capabilities must be verified under varied yet specific conditions – yet results need to binary (pass/fail) • microcredentials stress applications over theory, while academic disciplines historically tilt in the opposite direction • need to protect skills that microcredentials undervalue/do not evaluate (e.g., critical thinking)</td>
</tr>
</tbody>
</table>
Funding & Development Challenges

The Ministry of Colleges and Universities has called for postsecondaries to reach out to businesses in order to co-develop new microcredentials – but to remember that these should prioritize remote, part-time, etc. options rather than in-person, synchronous learning. The point of microcredentials is accessibility and flexibility for the learner, now that the government has tackled affordability (which was a barrier in and of itself). Tellingly, proposed closer partnerships with business have been framed as somewhat stacked in favour of the employer-side of the relationship. In order for sustainability and equity concerns to be addressed, these partnerships should be mapped, and fine-grained, imaginative analyses produced that protect and promote the specific needs and aspirations of Indigenous Institutes, Indigenous communities, and Indigenous learners. For example, while student funding for microcredential programs has been secured as a government priority, what is still lacking is funding for the accreditation of those programs – for preparing submissions to accrediting bodies and shepherding those applications through what is invariably a multi-stage, time-consuming, and resource-heavy process. This is one area in which, in the absence of dedicated or targeted funding from the MCU, IIs may need to build financial supports into existing or future relationships with both kinds of microcredentialing partners: community employers and postsecondary institutional collaborators.

In addition to the opening up of OSAP, there is a potential need to consider subsidizing programs in terms of affordability to the learner. Since most Indigenous Institute students are unable to take a leave to upskill or reskill, many of the opportunities already out there are practically foreclosed. In other words, the shift to online delivery has improved some accessibility issues while leaving others intact, and there is a significant chance that this may carry over into the new field of microcredentials. Relatedly, “pre-programming” funding for microcredentials in the Third Pillar also merits serious consideration and possible advocacy. Student success rates at Indigenous Institutes are unusually high because most programs perform intake interviews that allow tailoring to the learner, and the identification of their specific positionality in terms of prior learning, necessary supports, and the sequencing their learning journey, etc. especially where outcomes will be aggregated/stacked. Microcredentials, as short-term opportunities that are far more diverse and self-directed than any prior program model, levy far greater demands in this operational sphere. In particular, where intake assessments reveal underlying needs for pre-training (for example, basic skills in literacy, numeracy, technological proficiency, etc.), the funded opportunity to reskill or upskill may be effectively lost to the learner.

Finally, the basic orientation of microcredentials to self-directed learning presents unique challenges to Indigenous Institutes. Microcredentials are predominantly online or hybrid offerings, with an emphasis on asynchronous modalities that best accommodate learner schedules. Online delivery is one thing, usually fairly unproblematic because it is essentially knowledge transfer, but there is a high probability that learner competency assessments will continue to be hands-on in many areas of Indigenous Institutes’ programming – especially in the skilled trades and in professional disciplines (e.g., health care). Accordingly, IIs need to be able to access funding for not only delivery and evaluation, but for learner assessment at-a-distance in particular. Fortunately, simulating professional environments is something Ontario’s Indigenous Institutes are very good at: Some have developed innovative mobile labs that could be adapted to virtual, given availability of funding and/or in-kind supports from ministry or local agencies. Innovative solutions exist – there are already highly effective virtual clinics and labs in college settings – but the technology transfer lag is extreme when you move from the college and university portion of the postsecondary sector over to the Third Pillar. A great many learners at IIs are remote or rural, and regardless of physical proximity to an II campus, many remain “digitally remote.”
Available & Pre-Existing Supports

In seeking to strongly segue into the microcredentials sphere, Indigenous Institutes can avail themselves of emerging and pre-existing supports, both structural and targeted. Further resources are provided in the final section of this document, while some foundational avenues are outlined below.

- **Skills Canada** is a supporter of a national approach to “lead[ing] the world in skills development,” with a mission to “encourage and support a coordinated Pan-Canadian approach to promoting skilled careers in trades and technologies to youth and their communities.” Limited in that it does not create or oversee a national vocational skills qualification framework, and that it is focused on skilled trades and technologies, this is nevertheless an important sectoral actor supporting youth (with a special suite of initiatives for FNMI youth).

- In addition to OSAP funding, education credits are available for microcredentials. These include the **Tuition Credit** for skills-related courses/programs offered by a recognized educational institution or training provider (offered since 2017) and the **Canada Training (Tax) Credit** (offered since 2019 at $250/year to a lifetime max. of $5,000), which is applied to tuition costs for learning activities provided by a legitimate provider and is applicable is addition to the Tuition Credit.

- All common **Learning Management Systems** (LMSs) are well suited to the design, development, and delivery of micro-credentials. Competency-based, direct evidence assessments are quite feasible with the apps and plugins currently available to systems like Desire2Learn’s Brightspace. Further, the major LMSs support delivery across all modalities: In person, online, blended, and HyFlex.

- The **Future Skills Centre** makes strategic investments to grow a market for, and capacity in, microcredentials. A recent example that made headline was Humber College’s programming for racialized peoples, people with essential skills gaps, and youth newcomers, which was funded for $1 million. The most recent FSC call was for proposals to reskill workers rendered unemployed by the pandemic, and more targeted funding initiatives are pending.
Virtual Learning Strategy Foundations

INTRODUCTION

As early as March 16, 2020, in response to the late-2019 outbreak of the novel coronavirus SARS-CoV-2, Ontario primary and secondary schools, along with many postsecondary institutions, paused face-to-face learning. This initially temporary measure was extended for the remaining academic term while various other businesses and services halted operations altogether, and Ontarians were encouraged to stay home and “socially distance” as much as possible to help “flatten the curve” of infection. In the wake of the outbreak, the development and delivery of fully online and/or hybrid programming became the priority across the postsecondary sector. Amid the pandemic 1.2 million university students and another 800,000 students in colleges and polytechnics in Canada were compelled to radically shift their learning style. The 540,000 students completing their post-secondary education in 2020 likely completed their programs remotely.

At Ontario’s Indigenous Institutes, where an exploration of the potential of/for online learning had always been on the horizon, Winter Term 2020 saw those longer-term plans shift from a vague aspiration to a response-necessitated mandate. As other postsecondary institutions across Ontario began announcing their plans for a largely (if not fully) online Fall 2020 Term, IIs were quick to realize that continuing to support the educational priorities of their home communities, and maintaining high-quality programming in a competitive environment, meant “pivoting” to, and developing the capacity to excel in, virtual learning modalities.

BACKGROUND, DEFINITIONS & CONTEXT

E-learning, a term that emerged in the early 1980s, is used interchangeably with online course, web-based learning, web-based training, and learning objects. It functions as an umbrella term for “use of any digital device or media (multi-media) for teaching and learning, especially for delivery or accessing of content. Thus e-learning can take place without any reference to a network or connectivity.” It can be difficult to separate the nuance and evolution of terminology related to this form of educational delivery, which evolved out of a long tradition of distance learning. The idea of ‘distance’ in ‘distance learning’ is, surprisingly, not just about physical separation, but is instead:

a process of teaching and learning characterised by the separation of teacher and learner in time and/or place […] mediated by technology for delivery of learning content but with possibility of face-to-face interaction for learner-teacher and learner-learner interaction, and provision of two-way […] communication. Distance is about the transactional distance and not the physical distance. It is a conceptual construct with two key dimensions: structure and dialogue. Programmes with more structure and less dialogue are considered to have more distance.

References:
12 Li, Wanyee. (2020, March). Here’s what each Canadian province is doing to ‘flatten the curve’ of the novel coronavirus. The Toronto Star.
15 Commonwealth of Learning. Open and distance learning: Key terms and definitions. (p. 3).
16 Commonwealth of Learning (p. 2).
Distance learning began with 19th century correspondence courses, advanced with 20th century radio and television broadcasts, before moving into the online realm. Today, computer-based technology is the dominant mode.

E-learning is conducted in a virtual learning environment, where “a software system that combines a number of different tools that are used to systematically deliver content online and facilitate the learning experience around that content.” This specific technology more commonly referred to as a learning management system (LMS), although some sources use the terms ‘course management system’ or ‘knowledge management system.’ Educational institutions began adopting computer networking in the mid-1970s as email was first used to facilitate academic exchange, followed by supplementing university-level courses, and then moved into K-12 schools by the early 1980s. Fully online courses began in 1981 with noncredit ‘mini-courses’ and executive training programs. Other experiments emerged in the 1980s such as Solinet, a wide-scale online labour education program. By the 1990s, national education networking programs were developed such as Canada’s SchoolNet, the first step in networking all schools, museums, libraries, and indigenous communities. Simon Fraser’s Virtual-U was one of the first Web-based learning environments, “an online environment tailored for a course-oriented approach, it provided an integrated set of instructor and learner tools to support educational delivery based upon principles designed to support group learning and teamwork in constructing knowledge innovation, and solving problems”. Virtual learning was initially pursued at a local level as individual schools, and even departments, used different systems and strategies. This led to the need to review e-learning in terms of an overall institutional provision and strategy.

---

20 Harasim (p. 45).
21 Harasim (p. 45).
22 Harasim (p. 45).
23 Harasim (p. 45).
24 Weller, Virtual learning environments (p. ix).
Key Concepts & Approaches

Unlike microcredentials, definitions in virtual learning are fairly well established — although new terms, or modifications/adaptations of existing concepts, are always emerging. At present, the main dimensions of e-learning programs are described using the following terms: 25, 26, 27, 28

<table>
<thead>
<tr>
<th>Dimension/Attribute</th>
<th>Meaning</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SYNCHRONICITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asynchronous</td>
<td>Content delivery occurs at different time than receipt by student (also applies to learner-to-learner interactions, which also have a time lag).</td>
<td>• lecture module delivered via e-mail link • discussion forums and email interactions</td>
</tr>
<tr>
<td>Synchronous</td>
<td>Content delivery occurs at the same time as receipt by student.</td>
<td>• lecture delivery via Webcast</td>
</tr>
<tr>
<td><strong>LOCATION</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Same Place</td>
<td>Students use an application at the same physical location as other students and/or the instructor.</td>
<td>• using a group support system to solve a problem in a classroom</td>
</tr>
<tr>
<td>Distributed</td>
<td>Students use an application at various physical locations, separate from other students and the instructor.</td>
<td>• using group support system to solve a problem from distributed locations</td>
</tr>
<tr>
<td><strong>INDEPENDENCE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual</td>
<td>Students work independently from one another to complete learning tasks.</td>
<td>• students complete e-learning modules autonomously</td>
</tr>
<tr>
<td>Collaborative</td>
<td>Students work collaboratively with one another to complete learning tasks.</td>
<td>• students participate in discussion forums to share ideas</td>
</tr>
<tr>
<td><strong>MODE</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>At least 80% of content is delivered via technology. There is no face-to-face component.</td>
<td>• an electronically enabled e-learning course</td>
</tr>
<tr>
<td>Web-Facilitated</td>
<td>Web-based technology is used to facilitate what is essentially a face-to-face course. May use an LMS or web pages to post the syllabus and assignments. 1-29% of content is delivered online.</td>
<td>• a website where the syllabus, presentations, taped lectures and handouts are made available</td>
</tr>
<tr>
<td>Blended/Hybrid</td>
<td>E-learning (online asynchronous activity) is used to supplement traditional classroom learning (and vice versa). 30-80% of content is delivered online.</td>
<td>• most commonly used format in postsecondaries • in-class lectures are enhanced with hands-on computer exercises and/or pre-class exercises</td>
</tr>
<tr>
<td>“HyFlex”</td>
<td>Hybrid learning components are presented in a flexible course structure where students can attend in the classroom, participate online, or both - according to their need or preference.</td>
<td>• a course with flexible attendance and participation metrics (students can change their mode of engagement as they go)</td>
</tr>
</tbody>
</table>

Ranging over these modalities, virtual learning is purported to deliver broad advantages over face-to-face modalities, including improvements in: 29, 30

- **access to information & learner accountability**
  (i.e., the ability of find what is needed at the time it is needed)

- **content updating and maintenance of currency of knowledge**

- **experience personalization: self-directed/ self-paced learning and flexibility of engagement**

- **collaboration, participation, and community-building**

- **content standardization & ease of distribution**

- **(re-)integration of assessment outcomes & workflow monitoring**

- **time & resource commitment**

Andrew Schrumm notes that, “[o]nline education has the potential to be a great leveler among institutions,” 31 allowing schools of any size, in any location to provide unique offerings. Virtual learning, he points out, “is borderless, scalable and untethered to the traditional academic calendar.” 32

---

29 Ruggeri et al., A global model (pp. 2-3).
31 Schrumm. The future of post-secondary education (n.p.).
32 Schrumm. (n.p.).
Technology and the Promised Transformation of Education

Building on earlier trends, and energized by the current pandemic, in the past year “venture and equity financing for education technology start-ups has more than doubled, surging to $12.58 billion worldwide.” 33 Although the market is expected to shrink after pandemic conditions recede, the normalization of digital education will have lasting effects through the rapid training of both students and teachers in online education. However, it should also be noted that past predictions of the effect of other online educational developments, such as the massive open online class (MOOC), have proven inaccurate. 34 Even relatively recent predictions forecasted their “enormously transformative impact” 35, which has not actually materialized. Originating in 2008, MOOCs were differentiated from academic online courses in terms of the number of students enrolled as well as distinct pedagogical approaches. 36

However, most MOOCs did not deliver on their disruptive promise, having been quickly assimilated into traditional university formats. In these cases, “their methodological structure is virtually identical to the usual courses of the university (face-to-face and distance), the course organization is content-oriented (students adapt to the content selected by the faculty) and technology platforms are a (reduced) version of the learning management systems (LMSs) used in universities.” 37

This comes alongside numerous other technology fads and trends in education that have often failed to transform learning or have outright disappeared. 38 It can, therefore, be difficult to predict the actual effect and direction of pedagogical-technological change. Factors identified as contributing to the failure to realize potential benefits of technology and virtual learning in education include:

- Innovation without a strong conception of teaching and learning.
- Allowing cost-efficiency, rather than learning, to drive innovation.
- Lack of instructor training.
- Lack of alignment between pedagogy and technology.
- Lack of evidence that technology improves learning.
- Gap between technological promise and delivery.
- Difficulty of creating technologically impactful change. 39

Moreover, there remain limitations to the current drive to virtual learning through the already existing skill sets of both learners and instructors. 40 Other barriers to effective e-learning include concerns about validity and effectiveness, a comparative lack of interaction, and inability to accommodate some learning styles. 41

---

35. Hellweg (n.p.).
37. García-Peñalvo et al. (p. 1019).
39. Mintz (n.p.).
**Persistent Digital Inequality in Education**

The shortfalls in effective uptake of educational technology occur alongside persistent, substantial limitations in access to adequate hardware and bandwidth capacity, as well as other digital inequalities. Indeed, these inequalities also exist between institutions as “top private universities have better IT infrastructure and higher IT support staff ratio for each faculty compared to budget-starved public universities.”

Digital inequalities persist both between countries (e.g., 34% of Indonesian students have access to a computer for schoolwork compared to 95% of students in Norway) and within countries (e.g., only 25% of economically disadvantaged 15-year-old students have a computer to work on in the US comparison with nearly all of those from privileged backgrounds).

According to the Organization for Economic Cooperation and Development (OECD), the ‘digital divide’ “refers to the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access information and communication technologies (ICTs) and to their use of the Internet for a wide variety of activities.” Although the term originally related to the ability to access computers, it has evolved as the falling cost of computers and creation of more technology access points has reduced this divide in certain respects. Nevertheless, the digital divide remains a persistent issue, even within developed countries, whether by virtue of economic conditions or a lack of service providers. The 2030 United Nations Sustainable Development Goals state that “the spread of information and communication technology and global interconnectedness has great potential to accelerate human progress, to bridge the digital divide and to develop knowledge societies.”

Although there are well-known challenges in student completion of online learning opportunities, traditional models of student attrition focus on students whose academic integration was facilitated by past achievements and social expectations of higher education. Although virtual learning is associated with higher dropout rates in higher education, there are indications that the choice of this mode of study can be a result of personal circumstances (e.g., family responsibilities, remote locations, economic constraints) that act as intervening variables, potentially skewing the research results. Dropout rates are also related to remoteness, which may be related to a lack of social integration. Technological skills can also be a barrier to access as one study found that the vast majority of students self-reported as having average (52.7%) or expert (44.1%) computer skills. The same study report different experiences for graduate versus undergraduate students in online courses, potentially due to different levels of support and student maturity.

---

42 Govindarajan & Srivastava (n.p.).
43 Li, C., & Lalani, F. (2020, April 29). The COVID-19 pandemic has changed education forever: This is how. World Economic Forum.
49 Kember et al. (p. 265).
50 Kember et al. (pp. 265-66).
52 Miller et al. (p. 15)
SECTORAL SCAN

Pre-COVID, the most cited reasons why postsecondary institutions considered online learning a strategic priority included “growing continuing and/or professional education, [increasing] student access, and [attracting] students from outside the traditional service area.”53 Most academic institutions expected their online course enrollment to continue rising, and saw virtual learning as a tool to increase their catchment.54 (The realization of this aspiration may have been preempted by COVID.

Although over 85% of surveyed institutions indicated that online education plays a strategic role in attracting students from outside their traditional service areas, the majority of online students – over 95% - reside within their province.55 According to Allen, Seaman, Poulin, and Straut, distance education was poised to continue promising growth despite declining overall higher education enrollment, with an accompanying increase in the proportion of institutions that saw virtual learning as a critical component of their long-term strategy.56 However, prior to the pandemic removing the option to transition to virtual learning, there was also ample evidence of resistance from chief academic officers, who appeared to doubt the value and legitimacy of online education.57 Not only do a high proportion of Canadian universities and colleges deliver courses in person, but none have moved away from such offerings; and only 76% of postsecondaries surveyed offered some form of online offering.58 Likelihood of offering courses varied with the type of institution:

“Universities (93%) and colleges (85%) were most likely to offer online courses while CEGEPs (55%) and private subsidized colleges (24%) were least likely to have online courses.”59 Similarly, 76% of respondent universities are reported using blended/hybrid delivery methods for some courses, distributed as: 89% of universities, 78% of colleges, 56% of CEGEPs, and 20% of private subsidized colleges in Québec.60

Data from the Canadian Digital Research Learning Association demonstrates the continued importance of digital learning as this aspect of Canadian post-secondary education continues to grow. Despite their significance to institutional horizons, though, only a minority of postsecondaries have a fully implemented a strategic plan for virtual learning.61 Indeed, a 2019 national report explicitly notes the continued existence of “a paradox between the stated perception that online education is important for institutions compared to the implementation status of strategies for online learning.”62 In other words, rhetorical commitment to virtual learning is high while actual implementation planning is lacking.

Structural & Acquired Barriers

There are a number of barriers to making fully online education a reality in Ontario. The First Nations Technology Council found that 75% of Indigenous communities lack access to 50 MPBs download/10

54 Johnson, (p. 10).
55 Johnson (p. 13).
56 Allen et al., Online report card (pp. 4-5).
57 Allen et al., Online report card (pp. 4-5).
58 Johnson, Tracking online education (p. 7).
59 Johnson (p. 8).
60 Johnson (pp. 17-18).
61 Johnson (p. 32).
62 Johnson (p. 2).
MBPs upload internet. At least 4.4% of Canadian youth from low-income households do not have access to home internet, so that as many as 6% of all students rely on computers in local libraries and community centres to get online. Contact North found that “[i]n the lowest income quintile of Canadian households, more than one in three homes do not have a computer at all.”

Sustainable infrastructure is a further concern, as a number of schools have found themselves having to offer hybrid or even fully online programming without first engaging in the planning usually required of these types of initiatives. Canadian schools have invested hundreds of millions of dollars in new devices for students without having committed to the skills-building or the Wi-Fi infrastructure required to effectively implement these devices. Relatedly, implementation/operationalization and security remain major concerns with the growth of online learning. “Zoombombing,” issues with proctoring and surveillance overreach, and data breaches have all become priority concerns in the sector, in addition to inequitable student access to technology.

Dian Schaffhauser urges that what is needed is “greater attention to data governance and security measures across the kindergarten-to-college continuum [including] actionable data privacy policies and practices that safeguard student data collection, storage, sharing and use.”

All of these developments entail a new role for instructional designers. Contact North rightly points out that “[s]haring a course outline on a learning management system (LMS), together with a curated collection of content, does not make for engaged and effective learning. It may be all that was possible in the short time between the lockdown and delivery, but teachers know it was not enough.” This is something that instructional designers, who design effective learning experiences based on learning models and theories, have understood for some time. Over the past year, it has become clear that a number of instructors are unfamiliar with these design principles and practices, thus the urgent need for knowledgeable instructional designers.

The “New Normal”

Predictions of the post-pandemic educational landscape are beginning to emerge. These are yet to converge but most include an admixture of: More blended learning, with instructors integrating some of their online experiences into the physical class space; greater use of open educational resources, which many instructors discovered only as a result of the pandemic; and greater engagement with technology as a feature of teaching and learning.

There will, however, be no substantial expansion in online learning unless “universities and colleges are incentivized to expand flexible and online learning; online learning becomes a financial imperative in terms of sustaining programs and markets; investments of substance are made in faculty development; and significant new investments are made in broadband infrastructure (especially for rural Canada) and supports are found for students with limited or no access to appropriate technology.” None of this will be surprising to Ontario’s Indigenous Institutes.

Stronger collaboration between universities and colleges is a looming norm, least of all to reduce duplication and increase access to online resources. A measure of effective collaboration is already being undertaken by the Maple League of schools in Atlantic Canada, the

---

Contact North (2020). *What’s next for teaching online in colleges and universities in Ontario?* (n.p.).


Schaffhauser, Forever changed (n.p.).

Contact North, *What’s next* (n.p.).

Contact North, *What’s next* (n.p.).

Contact North (19 November 2020). *Is online learning at a tipping point?* (n.p.).

Contact North, *Online learning* (n.p.).
Tri-University Group in southern Ontario, and through Education City in Ottawa. As online learning becomes the norm, partnerships like these will become necessary “to coordinate online course offerings that maximize student options and experiences.” ⁷⁰ Business models, program designs and the delivery of learning itself will also likely undergo review and be required to make at least moderate changes. ⁷¹ The availability of technology will certainly be important, “but public finance, public policy and the collapse of existing business models in the higher education sector are more likely drivers of change.” ⁷² It is also likely that “there will be a system shift from a “supply side” view of the work of colleges and universities (“offer it and they will come”) to a demand-led market driven by local, provincial and national needs.” ⁷³ This is reflected in the massive push for Microcredentialling across the province.

Contact North identifies five key features of the educational landscape of will shape the future pathways for Canada’s post-secondary institutions: Money; demand; technology; structures; and skills. ⁷⁴ They further identify ten developments that are likely to shape the future of learning beyond school: ⁷⁵

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>An increase in modular, stackable learning – i.e., microcredentials.</td>
</tr>
<tr>
<td>2</td>
<td>Year-round admission, making more courses available, anywhere, at any time</td>
</tr>
<tr>
<td>3</td>
<td>Mode choice, allowing students to choose between face-to-face or online learning.</td>
</tr>
<tr>
<td>4</td>
<td>Assessment-on-demand, allowing students to undergo evaluation independent of a structured program, and having the option of using this towards a credential anywhere.</td>
</tr>
<tr>
<td>5</td>
<td>Learner mobility, allowing learners to take their knowledge and credentials with them as they move between provinces to secure employment.</td>
</tr>
<tr>
<td>6</td>
<td>Extending access to technology, creating more locations across the country where students can access high-quality broadband, requisite tech., quiet spaces, and learner supports.</td>
</tr>
<tr>
<td>7</td>
<td>The ongoing need to check our collective environmental footprint and cultivating the skills and knowledge to enable a green transition.</td>
</tr>
<tr>
<td>8</td>
<td>Indigenous learning – meaning not just greater access to higher education for Indigenous learners, but greater success.</td>
</tr>
<tr>
<td>9</td>
<td>Collaborative programming and an increase in public-private partnerships, in response to the need to reduce duplication and to rationalize finances.</td>
</tr>
<tr>
<td>10</td>
<td>Competency-based learning, which entails being able to demonstrate, in legally defensible ways, capabilities and competencies.</td>
</tr>
</tbody>
</table>

⁷⁰ Schrumm, The future of post-secondary education (n.p.).
⁷¹ Contact North, Online learning (n.p.).
⁷² Contact North, Online learning (n.p.).
⁷³ Contact North, What’s next (n.p.).
⁷⁴ Contact North (18 March 2021). Ten emerging developments are shaping a different future for colleges and universities (n.p.).
⁷⁵ Contact North, Ten emerging developments (n.p.).
⁷⁶ “This means colleges and universities will need to develop not just better supports and services to enable student success, but also, need to rethink curriculum to reflect Indigenous ways of knowing and working. Strengthening the role of institutions led and controlled by Indigenous communities and programs focused on indigeneity will be a key component of the future.” Contact North, Ten emerging developments (n.p.).
PEDAGOGICAL & METHODOLOGICAL CONSIDERATIONS

Ontario’s educational institutions have necessarily undertaken the transition to e-learning over the past year, to greater or lesser extents — but for the most part they have been using technology to deliver classes that are not, in any substantive way, different from their in-person counterparts. Unsurprisingly, in this context e-learning is not inherently more successful than traditional learning as its effectiveness depends on individual or organizational contexts, among other factors.  

Definitional problems have led to conflicting research findings about distance learning, e-learning, and online learning environments, and one key question is the very applicability of conventional theories of learning to the new environment. There is, in fact, some disagreement as to whether or not there actually are distinct models of e-learning, since typically “the role of the technology [has been] primarily to get remote learners into a position to learn […] as though they were campus-based, rather than offering a new teaching method. [This] enhancement should be seen as pragmatic rather than […] a new way to achieve deep understanding of a concept”. E-learning courses are “not a pedagogical approach in and of themselves, nor does establishing a course [online] provide an adequate vision for the learning that will take place. Similarly to offline […] courses, it is necessary to establish a coherent vision […] as well as guiding pedagogical principles and learning objectives to direct the learning process.”

Although there is debate whether e-learning and learning should be understood separately, “e-learning constitutes more than a specific environment or site for learning; […] something is happening to the nature of learning itself.” The issue remains: How to appreciate and enact this difference. The overall success of using technology to set better or improve existing learning outcomes, develop more effective assessments, or create a more accessible or cost-effective (for the student) learning environment, is widely questioned. For many educators, the move to virtual learning was too rapid for the kind of pedagogical consideration they would have preferred, or even insisted on, pre-COVID. A virtual learning experience is not a simple conversion of an existing face-to-face course; it demands a ground-up redesign. Ideally, the following, generally understood recommendations would have held sway in moving to virtual learning:

---

77 Becker et al., A learner perspective (p. 212).
78 Moore et al., The Internet and Higher Education (p. 129).
80 Hood & Littlejohn, Quality in MOOCs (p. 18).
82 Mayes & de Freitas, JISC e-learning models desk study (p. 4).
83 Lakahl & Bélisle, A continuum of blended and online learning (pp. 4-5).
The Considerations:

Gradually integrate [VL] courses, especially in [institutions] dominated by face-to-face instruction for several years.

Ensure the availability of sufficient support […] and ask for that support.

Make sound decisions about the technologies and activities to be selected, based on the instructor’s teaching preferences, the [available] tech., and students’ characteristics.

Rethink the way students’ and instructors’ roles are conceived […] Activities should be more student-centered.

Practice various technologies before the beginning of the course.

Integrate a variety of activities and estimate the time required to complete them.

Ask students to train on technology before the beginning of course.
Virtual Learning Assessments

Virtual learning does not yet have a fully developed assessment framework, despite both opening up new possibilities and levying unique demands. In regards to MOOCs, one of the most prominent forms of online learning, it has been noted that “we are not yet at the stage […] to create an absolute set of measures that can be employed to measure quality.”\(^{84}\) A key aspect of the challenge in developing assessment criteria is the manner in which e-learning courses are “shaped and ultimately the product of their designers and instructors, the platform and platform provider, and the participants, all of whom bring their own frames of reference and contextual frameworks.”\(^{85}\) Offerings must, therefore, be developed for particular audiences and contexts, and design assessments with these specifics in mind.\(^{86}\) This is an urgent issue given the importance of assessment and the need to devote considerable resources to this academic function, particularly as a function of quality assurance. As one study noted, “the evaluation of e-learning should include a peer-review process and an assessment of outcomes such as learner satisfaction, content usability, and demonstration of learning.”\(^{87}\) Furthermore, it is possible that the program evaluation will require more institutional investment than is required for the content development, particularly during piloting phases.\(^{88}\) These contextual demands place disproportionate strain on Indigenous Institutes, compared to their mainstream counterparts.

Learner-Centred Design (and Support for the Design Process)

Despite a belief that e-learning requires greater motivation than in-person modalities, Haythornthwaite and Andrews argue that, in fact, “young people in particular seem to see online learning as more potentially social, more accessible and more responsive than conventional face-to-face learning.”\(^{89}\) Because of this inherent sociality and the expansive potential of technology (beyond mimicking the physical classroom), e-Learning necessitates transformations in practice.\(^{90}\) This being said: Older learners may have distinct concerns about technology.

Recent research focuses on best practices from a student perspective has increased the understanding of human aspects and behaviour change in undergraduate students. The data showed that “a clear and efficient communication from instructors, tutors, mentors and peers (fellow students) are associated with innovation and creativity in the use of e-learning by the students.”\(^{91}\) Design and interventions that support collaboration, as well as self-created structures, are far more effective. Overall, “rich immersion experiences and individual/personal learning prospects are the reported drivers of e-learning.”\(^{92}\) Moreover, this research noted that best practices should also include techniques to reduce stress, fatigue, and errors related to e-learning.\(^{93}\) Unfortunately, institutions have been challenged by the many new and unique factors that virtual learning imposes on operational and pedagogical decision-making, beginning with the need to substantively

---

\(^{84}\) Hood & Littlejohn, Quality in MOOCs (p. 3).
\(^{85}\) Hood & Littlejohn (p. 5).
\(^{86}\) Hood & Littlejohn (p. 6).
\(^{87}\) Ruíz et al., The impact of e-learning in medical education (p. 212).
\(^{88}\) Ruggeri et al. A global model (p. 5).
\(^{89}\) Haythornthwaite & Andrews, E-learning: Theory & practice (p. 53).
\(^{90}\) Haythornthwaite & Andrews (p. 224).
\(^{92}\) Olasina (p. 278).
\(^{93}\) Olasina (p. 266-67).
support instructors in order to support students. The amount of effort required to design online and blended courses is almost universally underestimated, while teaching staff report feeling undervalued in their quest to adapt and, wherever possible, innovate. A common example of the fallout of insufficient instructor professional development support is an enthusiasm for virtual learning resources that outpaces — or even obscures — how these “innovations” can overwhelm the student or create extreme time demands. These strains compound when teaching staff do not plan for their course to be one of several that a student is expected to balance in a semester.

From the student perspective, key obstacles to e-learning include:

Technological skills and connectivity issues in the student body are often the singular focus of institutional strategizing in the shift to virtual learning — but this goes deeper than most treatments allow. Digital fluency lags do more than impede engagement, they have a strong emotional impact on students and their appreciation of the virtual learning experience. Further, unprepared, and unoriented to the actual virtual learning space (since most institutional orientations cover everything except the actual classroom), students can easily become overwhelmed by the vast and varied ecosystem of apps, activities, plugins, materials, etc. fostered by rough transitions to virtual learning. Ironically, accessibility constitutes an under-considered imperative, as there is a tendency to reduce ‘access’ to ‘functionality,’ which becomes a matter of securing the right tech and optimizing human-computer interfaces. Instead, “inclusion” in virtual learning is best conceptualized as including — centrally — the imperative to adapt the learning experience to the diversity of students’ optimal pace, personal gifts, and technological skills. It remains true that, whether online or in person, “inclusive education has to integrate students, attend their singularity and adapt to specific contexts.”

---

94 Lakahl & Bélisle. A continuum of blended and online learning (p. 4).
95 Olasina, Factors of best practices (p. 282).
96 Lakahl & Bélisle, A continuum of blended and online learning (p. 4).
SECTORAL STRATEGIES AS SIGNPOSTS

On December 11, 2020, arising from province-wide consultations with postsecondary educational institutions, the Ontario Ministry of Colleges and Universities (MCU) announced a Virtual Learning Strategy (VLS) Initiative. This $50 million investment was “intended to drive growth and advancement in virtual learning across the province’s post-secondary institutions. The strategy will expand the possibilities of traditional and life-long learning through the accelerated use of both online and hybrid learning.” All members of eCampusOntario (eCO) were eligible to apply, along with (under certain streams of the funding portfolio) Indigenous Institutes. The initiative was based on extensive and close consultations with the sector, conducted by the MCU, which identified both current and anticipated, post-pandemic needs for critical education supports. As such, the province’s Virtual Learning Strategy call for Expressions of Interest (EOI) is an unlikely, but reliable, indicator of sectoral imperatives, and a key to anticipated future directions in virtual learning. In it, imperatives were fourfold, with equal emphasis on:

- **digital content**
  High-quality online materials in English & other languages (incl. Indigenous languages); plus high-quality virtual simulations and/or lab content that reduces the strain on campus space & infrastructure, enabling more flexible delivery to attract new markets for online learning.

- **digital fluency**
  Development and adoption of professional development resources and supports for faculty and students to improve virtual teaching and learning.

- **digital capacity**
  Targeted supports in three areas: instructional design, open education librarians, and learning technology rovers (paid students).

- **digital delivery**
  Identification, procurement, and deployment of educational technologies to support digital course and program offerings.

Indigenous Institutes were limited to activities in digital content and digital fluency. In terms of strategizing growth, though, institutional fluency necessarily precedes programming content – having materials ready to deliver, as a step toward substantive engagement in virtual learning, relies on having individuals with the skills and confidence to teach (and learn) those materials. “Digital Fluency,” then, is where an initial inventory of key competencies in virtual learning can be drawn. The EOI for this stream of initiatives described the intention:

---

98 Kenjgewin Teg and Six Nations Polytechnic are members of eCampusOntario.

‘Digital fluency’ is a recent term that can be difficult to define — largely because of the variety of and vagueness in circulating interpretations. According to Jennifer Sparrow, it is best to think of digital proficiency as existing along a continuum: “In learning a foreign language, a literate person can read, speak, and listen for understanding in the new language. A fluent person can create something in the language: a story, a poem, a play, or a conversation. Similarly, digital literacy is an understanding of how to use the tools; digital fluency is the ability to create something new with those tools.”

It is this ‘fluency,’ within the teaching and learning community at Indigenous Institutes, that needs to be purpose-built and rendered sustainable. According to the MCU, the core elements of digital fluency are mappable under seven different themes:

<table>
<thead>
<tr>
<th>Assessment Strategies</th>
<th>HyFlex Design &amp; Teaching</th>
</tr>
</thead>
<tbody>
<tr>
<td>- skills in designing authentic or alternative assessment approaches for an online or hybrid environment</td>
<td>- the basics of HyFlex design and teaching (courses designed to be delivered by the same teacher, simultaneously in person and online)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Humanizing Learning</th>
<th>Digital Literacy Skills &amp; Competencies for Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>- skills to incorporate humanizing design principles into courses, from start to finish</td>
<td>- &quot;how to succeed in an online course&quot;</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>High Quality Online Courses</th>
<th>Digital Experience Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>- key principles of a high-quality online course (including content presentation, navigation, interaction, assessment, and accessibility)</td>
<td>- digital experience design (versus simply digital tool awareness) addresses the challenge of educating virtually, which is as much or perhaps more about understanding how to engage an audience virtually; tools like chats, polls, virtual breakouts, and collaboration tools are critical but technology is just one piece, as effective training requires understanding how to break up content into bite sizes, how to set norms and expectations around body language cues, etc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Low Tech Teaching</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>- reducing barriers caused by connectivity issues in the delivery of distance education courses</td>
<td></td>
</tr>
</tbody>
</table>

All of these themes identify skills-building priorities for virtual learning excellence, and so denote activity areas that Indigenous Institutes might consider prioritizing in the coming months. Instructor professional development and learner workshops could address specific competencies in digital fluency, using the MCU’s taxonomy (above) as a ‘scaffold’ on which to develop and deploy content iteratively, simultaneously building both individual and institutional capacity. Urgency is added when these potential engagements are considered in light of the fact that the most critical barriers to virtual learning success are the need for additional effort and training.

Although many institutions do offer targeted professional development opportunities, these are usually voluntary and non-incentivized.

---

100 Sparrow, Jennifer (12 March 2019). Digital fluency: Preparing students to create big, bold problems. Educause Review. (p. 54, emphasis added).

101 Johnson, Tracking online education (p. 40).

102 Johnson (p. 42).
Bridging to Current eCO VLS Projects

On February 3, 2021 the Indigenous Institutes Consortium’s seven members collaboratively submitted three proposals under the “Digital Fluency” stream; two of these were funded for a total of $398,340.00. These fell under the “Assessment Strategies” and “Hyflex Design & Teaching” submission streams – two critical suites of institutional capabilities and Instructor skills. The abstracts of the approved projects describe the identified need and proposed response in these specific spheres:

**HyFlex Design in Indigenous Teaching & Learning:** During COVID-19, adopting HyFlex design sometimes meant the difference between institutional survival and closure, with access to campus either impossible or unstable. Post-pandemic, with a return to in-person delivery, adapting Hyflex design could mean the difference between lifting Indigenous learners up and leaving them behind. This course contributes to that critical transition by presenting the basics of HyFlex design and teaching, focused through an Indigenous pedagogical lens. Participants will explore “hybrid flexible” theories and techniques that operationalize decolonizing principles, through four interactive modules covering: Diverse Indigenous perspectives on the appropriate role of technology in learning; the key physical, relational, and visual aspects of the Indigenous HyFlex classroom (choosing the right tools to mount an Indigenous online classroom); Indigenous storywork as a guide to dividing up and packaging content; synchronous/asynchronous land-based e-learning; understanding the centrality of place-based learning in remote contexts; incorporating kinship and community linkages in HyFlex course design; testing Indigenous methods across modalities and adapting (or transforming) course learning outcomes accordingly; connecting culturally through tech: real-time and any-time protocols, “one-to-many” communications, and maximizing presence across distance; and using Indigenous pedagogies to rethink assumptions about the HyFlex model itself.

**Indigenous e-Learning Assessment Strategies:** The proposed course provides an introductory-to-intermediate treatment of current trends in alternative/authentic postsecondary assessments, focused through an Indigenous and decolonizing lens. Participants will critically engage with and adapt assessment strategies for use in Indigenous e-learning classrooms, and in online and/or hybrid learning environments that are truly inclusive of First Nations, Inuit, and Métis learners. Four modules build a cumulative understanding of how Indigenous pedagogies are operationalized in not only accurately and effectively assessing Indigenous students, but in using assessments to support learner flourishing. Topics include definitions of student success from an Indigenous perspective; creating online assessments aligned to Indigenous learning outcomes; drafting culturally-grounded rubrics for Indigenous online pedagogies; ‘bigger picture’ assessments of Indigenous learners; addressing barriers to Indigenous student participation and performance through decolonizing assessment design; using assessment strategies to encourage intellectual self-determination in the Indigenous learner; and specific applications in college, university, and skilled trades programs.
There are clear opportunities to link these approved VLS projects to broader virtual learning imperatives in the Third Pillar sector, including the nascent Microcredentialling Framework (Section 1 of this document). The potential synergies between these two initiatives are multidirectional: Projects developed under the VLS are ideal candidates for delivery as microcredentials in some or all of the IIs; offering these courses as professional development for Indigenous Institute staff ‘upskills’ teachers, curriculum developers, and program administrators; and standalone microcredentials can be used to ‘pilot’ yet-untested aspects of virtual learning for Indigenous Institutes, building institutional capacity in e-learning learning pedagogies, technologies, and modalities.

IMPLEMENTING VIRTUAL LEARNING

In contrast to the developed landscape of learning theory and best practices for conventional instruction delivery, best practices in virtual learning are an emerging area of study and professional practice. This is complicated by the wide variety of delivery platforms, program designs, and even nomenclature, which itself has led to questions as to “whether e-learning is part of the medium (e.g. computer-assisted instruction) or the delivery mechanism (e.g. online learning).” \(^{103}\) Taken a whole, the literature on e-learning best practices shows a “landscape that is not comprehensive or practical to identify, evaluate and promote best practice behaviour.” \(^{104}\) Nevertheless, some commonly identified factors influencing success can be identified, including: \(^{105},^{106}\)

<table>
<thead>
<tr>
<th>institutional characteristics</th>
<th>instructor characteristics</th>
<th>learner characteristics</th>
<th>program characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>• organizational support (e.g., time allocated for training &amp; incentives for learning)</td>
<td>• motivation</td>
<td>• motivation</td>
<td>• blended programs, incorporating a mix of synchronous and asynchronous and co-located and remote learning, are most likely to balance face-to-face learning benefits with e-learning flexibility and user centered learning</td>
</tr>
<tr>
<td>• cultural support (i.e., a supportive learning environment)</td>
<td>• positive attitudes toward e-learning and blended approaches</td>
<td>• positive attitudes toward e-learning</td>
<td></td>
</tr>
<tr>
<td>• IT support (incl. both tech infrastructure &amp; learner IT assistance)</td>
<td>• high levels of technical and educational competency</td>
<td>• digital fluency</td>
<td></td>
</tr>
<tr>
<td>• organizational readiness for e-learning</td>
<td>• positive attitude toward learners</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^{103}\) Regmi & Jones, A systematic review (p. 1).
\(^{104}\) Olasina, Factors of best practices (p. 270).
\(^{105}\) Ruggeri et al., A global model (p. 4).
\(^{106}\) Mayes & de Freitas., JISC e-learning models desk study (pp. 22-23).
RECOMMENDATION 1: LEVERAGE DRIVERS & BENEFITS OF E-LEARNING

The authors of the eCampusON Drivers and Barriers to Online Learning in Ontario Report stated that “ability was not a hugely negative factor in individuals’ pursuit of online learning” and “over half of participants repeatedly stated that they felt able to pursue online education” — yet this finding simultaneously indicates that a large percentage of individuals do not feel ready for e-learning. One persistent hurdle is familiarity. Although 75% of the research participants said they understood the benefits and challenges of online learning, only 59% were familiar with the quality of online courses, 58% were familiar with the breadth of online courses, and 58% were aware of which providers offered online courses. There is also a clear need to address broader perceptions of e-learning, as only about half of survey respondents answered affirmatively to the following prompts:

“Learning online will advance my career and opportunities/ satisfy my intellectual curiosity.”

“Pursuing an online program or course will make a positive difference in my life.”

“An employer may not recognize an online credential as equal in quality to a campus-setting program or course credential.”

“The societal perception is that doing online courses is a good option for learning.”

“My friends/family encourage me to pursue a program or course on campus/face-to-face instead of online.”

---

108 eCampusOntario (p. 8-9).
109 eCampusOntario (p. 26).
Career development and job opportunities are also important drivers of e-learning, indicating a potentially critical overlap of virtual learning strategizing and the development and delivery of microcredentials specifically. Indeed, 41% of respondents felt that e-learning offered “very good” job readiness, and 43% felt these opportunities offered “very good” employment opportunities. Overall, the following factors were identified as increasing the likelihood that students will pursue e-learning:

- **Career advancement through new skills (44%).**
- **Convenience through balancing life, work, and study (44%).**
- **Help in finding a job (30%).**
- **Pleasure of learning (26%).**
- **Affordability (20%).**
- **Complete missing credits (19%).**
- **Lack of access to nearby universities and colleges (11%).**

While the eCampus ON survey respondents had a favourable view of in-person learning (88%) and hybrid or blending learning (85%), online learning still had a strongly positive response (77%). Within Ontario’s Indigenous Institutes, learners are reporting a wide range of attitudes toward and experiences with e-learning, which do not settle out along clear lines of age, experience, or any other obvious metric. The onset of ‘pandemic fatigue’ can be expected to skew the results of further attempts to capture learner perspectives, as the anxiety and exhaustion of successive public health and safety directives impact every aspect of their lives – inside and outside of the classroom.

---

110 eCampusOntario (p. 14).
111 eCampusOntario (p. 18).
112 eCampusOntario, Drivers and barriers (p. 10).
Actions/Next Steps for Recommendation 1

1. Focus on awareness-raising around e-learning offerings, and the validity and advantages of e-learning in general, among community members, prospective students, and other stakeholders. In particular, develop information materials that address overt or passive biases against e-learning as “inferior” to in-person courses and programs. Use the prompts in the infographics in this section to focus and target these promotional materials.

2. Prioritize the actual drivers of student choice of e-learning in designing curriculum and planning delivery. These can offset/ameliorate other, valid and important considerations (for example, the perceived and actual advantages of in-person learning for culturally embedded programming, or program elements).

3. Increase both the alignment of existing curriculum to labour market opportunities, and the promotion of these opportunities as employment-focused, underscoring the job skills and career pathways e-learning opportunities will satisfy.

4. To ensure currency of knowledge include, in all planning, processes and resources for updating online content. This one measure pays out severalfold in terms of program and institutional reputation (as well as figuring into regulatory standards and benchmarks – see Recommendation 8).

5. Work with local employers to develop student confidence in course and/or program benefits.
RECOMMENDATION 2: ADDRESS THE INTERACTION OF BARRIERS TO TECHNOLOGICAL ACCESS, ASSET AVAILABILITY, AND DIGITAL LITERACY

Most of the IIC member institutes undertook technology lending or financing models for students without access, or with limited access to appropriate devices, while many Indigenous student funders provided direct purchases, financial offsets, or allocations for technology purchases, and laptop or Chromebook purchases in particular. Many IIs established wi-fi hubs, boosters, hotspots, or even Internet cafés on campus, or in safe, physically distanced areas in reasonable proximity to the campus; as well as ‘loaner’ prepaid cell phones to tether to students’ own devices to access the internet. Generally, uptake of these provisions was far lower than expected, indicating that something in addition to, or other than, sheer availability was at issue.

As noted in the body of this report, the digital divide remains a persistent concern throughout even comparatively wealthy countries, whether by virtue of local economic conditions or a lack of service providers in certain regions. Although 99.7% of the population of Canada has mobile coverage, broadband coverage lags behind. The Canadian Radio-television and Telecommunications Commission (CRTC) has set a universal service objective of 50 Mbps download and 10 Mbps upload (with unlimited monthly data transfer). This goal has particular implications for e-learning, since strategies to engage learners rely on a broad range of LMS and embedded app functionality that, in turn, require fast, streaming service. Unfortunately, strong inequalities emerge when overall statistics are disaggregated to reveal highly differential attainment of this objective (50 Mbps download and 10 Mbps upload in all households), as illustrated in the infographic (above), showing that only urban areas have sufficient connectivity — and on-reserve populations fall below even the “rural” designation (often provided to explain lagging provision as a problem of sheer geography). In 2019, 87.1% of households in First Nations reserves were able to access broadband Internet services with a speed of at least 5 Mbps, but availability decreases to below half of households at speeds of 50 Mbps or faster, and to less than a third at speeds of 100 Mbps or faster.

---

113 Ovide, A capitalist fix to the digital divide.
115 CRTC (p. 155).
116 CRTC (p. 104).
117 CRTC (p. 110).
DIGITAL LITERACY

Differential access to broadband has predictable, yet often overlooked effects on digital literacy. As noted in a 2021 survey, “besides unreliable internet connection, some students […] do not have sufficient basic computer skills to be successful in a wholly online learning environment,” and “transitioning from a pencil and paper to all tech learning environment almost overnight induced anxiety in more mature students.” Current learners and potential students with limited or no access to broadband are particularly vulnerable to such skills gaps, which profoundly affect their willingness to undertake e-learning, along with their capacity to succeed in virtual educational environments. This is exacerbated by a lack of preparation: A recent survey found that only 51% of learners felt they have received guidance about the digital skills they needed for their course, while only 34% felt their postsecondary institute had provided them with the chance to assess their digital skills and thus know where they stand and that they needed to seek assistance. Further, digital literacy shortfalls impose their own, significant emotional toll on students, in addition to the burden of isolation and social disconnection that can accompany a fully virtual learning experience.

Student success rates at Indigenous Institutes are unusually high, as discussed earlier in this report, because many programs perform intake assessments. These allow tailoring of the program to the learner, and the identification of their specific positionality in terms of prior learning, necessary supports, and the sequencing their learning journey, etc. Where intake assessments reveal underlying needs for pre-training (for example, basic skills in literacy, numeracy, technological proficiency, etc.), the opportunity to reskill or upskill may be effectively lost to the learner, or require an additional, short-term, advanced training. This is a strong, community-responsive strategy that can evolve with the changing operating environment. One such change has now come due, with the need for comprehensive, thoroughgoing updates to identify specific digital literacy competencies that can be turned into targeted assessments of digital skills gaps. Alongside this is the need to develop comprehensive assets inventories and perform predictive modelling, so that potential deficiencies may be matched with available resources and supports.

---

Actions/Next Steps for Recommendation 2

1. Review and revise the student intake/interview process to specifically assess digital literacy skills and skills gaps. Develop a system to qualitatively and quantitatively query these aspects that can be used by all IIs, in order to share process insights, recommendations, and further development.

2. Expand student orientation activities to include a live orientation to the actual classroom environment. In the lead-up to the start of any academic term, provide new students with the opportunity to actually practice various technologies, either with access to or guided by a mentor.

3. Survey students for hidden barriers to the uptake of assets offered by the program and/or funder (laptops, etc.). Use this data to inform revision to the current intake/interview process.

4. Document inventories of relevant assets, including internal and external (within the surrounding community) resources that could help students overcome access, asset, and digital literacy challenges.

5. Integrate digital literacy-building activities and supports into all courses and programs, as an adjunct to a course, an embedded element of the course, or a pre-enrolment activity. Preparatory learning could even be certified as a microcredential in student e-learning strategies.

6. Diversify (or maintain a diversity of) delivery modalities, in order to accommodate differential access to broadband internet; in particular, explore HyFlex delivery and the harmonization of low-tech options. As the eCO VLS projects include a full course of four modules in Hyflex design and delivery, enroll at least one “adoption champion” at each Indigenous Institute in the pilot offering of this microcredential.
RECOMMENDATION 3: REVISIT (AND REVISE) TEACHING STAFF ENGAGEMENT, TRAINING, AND SUPPORT STRATEGIES

Staff engagement and investment in e-learning is essential to the success of online, hybrid/blended, and HyFlex offerings. Many of failures to harness the potential of technology in education, identified earlier in this report, can be addressed, in whole or in part, through thoughtful, targeted engagement, training, and support of teaching staff. Much like students, staff face challenges in digital capability, digital confidence, and wellbeing in digital learning environments – yet these were subsumed by necessary but disproportionate attention on learners at the start of the pandemic, exacerbated by the incredible speed of the required transition to online programming.¹²⁰

Many of Ontario’s Indigenous Institutes pivoted to online learning in as little as two to three weeks – an astonishing achievement in itself. One consistent finding in conversations and interviews with II staff, though, has been an admission that time lost early in this rapid transition to online delivery was never regained, and could not be effectively compensated for since the considerable additional, necessary resources never materialized. This “lost time” included the critical leeway to refocus attention on teaching-side (verses learning-side) stressors, once in-process students had been progressed through their courses and programs and delivery had (relatively) stabilized. Further, institutions understandably underestimated the amount of effort required to convert courses to virtual delivery – while designing online and blended courses from scratch, and innovating to apply Indigenous pedagogies to virtual environments, is even more demanding. Without careful attention to this “unbalanced equation,” teaching staff may end up feeling both under-supported and undervalued. Ultimately, in order to support students, institutions need to substantively support instructors.

The precarious funding for Indigenous Institute program delivery, which has resulted in a lack of full-time permanent teaching staff, has also been a significant impediment in institutional responsiveness to the pandemic – and in the switch to e-learning in particular. This missing organizational layer added to institutional strain while eroding (a) the continuity of skills/knowledge that would have provided a much stronger base on which to mount the pandemic response, and (b) instructors’ sense of mutuality of purpose and support, even as II teaching staff were asked to perform new, complex activities under exceptionally challenging, unprecedented circumstances.

Technology Skills

As previously noted, although many post-secondary institutions offer targeted professional development (PD) opportunities, these are usually voluntary and non-incentivized; further, teacher PD activities were typically sacrificed as emergencies, urgencies, and other exigencies drove the constantly evolving pandemic response. In these areas, peer-to-peer mentoring is a particularly valuable mechanism for sharing effective practices. Such networks have increased in both breadth and depth during the pandemic; however, teaching staff burnout is approaching critical levels as ‘pandemic fatigue’ mounts, while teaching loads remain at pre-COVID levels (or higher).

Digital Pedagogy Models

As this report has detailed, there is no definitive model for effective teaching practices in digital learning. Because this is an evolving area, commitment to ongoing evaluation and improvement is essential. As has been noted, “an improved understanding of educational technology and its relationship to pedagogy will allow […] evidence-informed decisions around the use, adoption, and even rejection of emerging technologies and practices in their efforts to enhance learning, teaching, equity, diversity, inclusion, and student success.”

Communicating both the pedagogical and practical benefits can help motivate those who are less engaged with technology, or who doubt its efficacy in Indigenous learning contexts.

121 Johnson, Tracking online education (p. 42).
122 Johnson (p. 40).
123 Wehrstedt & Falcigno, IIC student success (p. 13).
127 Killen, Langer-Crame & Penrice, Teaching staff digital experience (p. 10).
Earlier, this report identified “innovation without a strong conception of teaching and learning” as a key factor contributing to the failure to realize the potential benefits of e-learning technology, along with a “lack of alignment between pedagogy and technology.”

Given the unsettled nature of best practices in digital learning, there is an opportunity to document existing Indigenous pedagogical approaches in II settings, and develop e-learning methodologies based on Indigenous pedagogies, rather than adapting mainstream understandings and modalities. Given both the Third Pillar focus on student engagement and knowledge-building as a relational activity, and the repeated student concern about isolation in digital learning, Indigenous Institutes are ideally positioned – given adequate resourcing – to become global innovators in the field of digital education. Similar to the role of peer mentoring in relation to technology skills, mentoring also holds great potential in pedagogical innovation. This is not a substitute for providing organizational-level training and support, but is instead a key element of developing an ‘organizational community of practice.’

Other Knowledge Areas

Indigenous Institutes’ teaching staff, as well as staff in other program support areas such as Student Services and the Registrar’s Office, will need additional, and ongoing, training in areas unique to or substantively different in digital education. Often, these areas of professional practice (examples shown at left) will lie outside of their existing expertise, or at best will present a challenge to their existing understanding and work protocols. Such considerations are increasingly important, particularly given recent privacy breaches and growing concerns over the use of data. One survey found that “only 36% of students agreed that their organisation had told them how their data was collected and used.”

While there is reason to believe that this may be a matter of perception rather than fact, this figure indicates an urgent need to be transparent and to integrate such considerations into course design and student orientation.

---

128 Mintz, Why most ed tech fails (n.p.).
129 Killen & Langer-Crame, Student digital experience (p. 9).
## Actions/Next Steps for Recommendation 3

1. Consolidate online platforms, reducing the number of applications that instructors need to navigate. Where partnership agreements necessitate the use of two or more LMSs, amend articulation agreements to include additional LMS support responsibilities for the partner, including staff training and troubleshooting.

2. To the greatest extent possible, move toward a core of full-time permanent teaching staff who can be “change champions” for further initiatives in e-learning.

3. Develop and deliver a “training bundle” for all IIC members’ teaching and program support staff, covering the five e-learning professional practice areas of concern (as shown in the “bubbles” infographic, above). Further: Create resource-sharing agreements to provide all-IIC teaching staff training in these foundational regulatory, professional, and ethical standards virtual learning.

4. Ask digital learning software vendors to provide, or significantly subsidize, training for program staff.

5. Provide mechanisms, incentives, and support for peer-to-peer staff mentoring and job-shadowing.

6. Free up funding to identify and compensate the most successful online teachers, at each II, to pass along their skills and/or process, potentially via train-the-trainer modalities that add relational momentum to knowledge mobilization.

7. Convene forums where instructors can share successes from the past term, and especially innovations in e-learning.

8. Improve technology support services (which can also provide additional assistance to students), including hiring e-learning technologists dedicated to academic areas – i.e., program delivery, student services, etc.

9. Clearly differentiate organization-level training (formal professional development of teaching staff, scheduled at regular intervals) and organizational communities of practice (teaching staff helping one another, typically informally and on-demand), and provide targeted supports to both areas.

10. Undertake a sectoral scan of best practices in e-learning in Indigenous educational environments specifically. This primary research should include a strategy to communicate the findings and develop specific applications and advice for adaptation to local contexts.

11. Consider convening an Expert Panel to evaluate mainstream strategies for their potential efficacy in Indigenous e-learning contexts and issue strategic recommendations; as well as to generate sui generis e-learning pedagogies that arise from Indigenous knowledge and ways of knowing.

12. Revise existing teaching staff professional development policies/practices to expand and incentivize opportunities, while building in knowledge transfer/mobilization pathways, in order to ensure that skills gained are disseminated throughout the entire teaching community.
RECOMMENDATION 4: AUGMENT ORGANIZATIONAL RESOURCES FOR E-LEARNING

Although there are areas of overlap with traditional course offerings, institutions should expect that effective provision of digital education will require sites of strategic investment in order to ensure effective, high quality learning experiences. Broadly, according to eCampusON, factors identified as beneficial to the e-learning experience are summarized in the infographic, below.

- Flexible scheduling (esp. ability to maintain employment).
- Self-paced study.
- Ease of access (in terms of both location and timing).

Student Supports

One digital learning adaptation measure consistently identified in the literature is the need to adopt proactive, targeted models of student support. Digital learning can limit, or even lack both the peer-to-peer and the instructor-to-learner interactions that facilitate students’ sense of commitment and capacity in their learning journey. Although it is challenging to differentiate the effects of COVID-19 from the effects of the specific e-learning transitions it necessitated, students surveyed by the IIC conveyed feelings of disengagement with online work, anxiety and depression, and difficulties adjusting to online learning. As that report notes, “under normal circumstances, Indigenous educational institutions afford the opportunity for students to engage in [...] specific activities such as powwows, potlucks, and outings/land-based learning opportunities.”

Another survey found that “50% of individuals who don’t favour online learning dislike it because they place value on peer-to-peer social interaction.” The importance of similarly robust instructor-learner contact was also noted. One identified solution is through offering co-curricular and extra-curricular workshops and webinars, but there is additional, considerable room for innovation in both general educational resources and culturally-specific support for online learners. Worryingly, less than half of administrative and teaching staff surveyed by eCampusON were familiar with support services for online learners, meaning that this directive must be conceptualized as an organization-wide necessity as well as a required – and supported – shift in current approaches to student support.

130 eCampusOntario, Drivers and barriers (p. 11; p. 14).
131 eCampusOntario (p. 12).
132 Wehrstedt & Falcigno, IIC student success (p. 25).
133 Wehrstedt & Falcigno (p. 12).
134 Wehrstedt & Falcigno (p. 13).
135 eCampusOntario, Drivers and barriers (p. 10).
136 eCampusOntario (p. 12).
137 Wehrstedt & Falcigno (p. 25).
138 eCampusOntario (p. 8).
Technology Resources
In order to develop and deliver effective digital learning opportunities, there must also be significant investment in organizational infrastructure in order to ensure the necessary technology resources are available to faculty and staff. Rather than just “assets” (laptops, etc.) this encompasses: 139

Including Voices from the Teaching & Learning Community
One means of ensuring effective multi-stakeholder investments in e-learning is to incorporate members of the teaching and learning community into digital delivery decision-making processes at all operational levels. A recent survey of higher education in the United Kingdom underscored the need for this internal governance shift, as only 11% of instructors and 17% of students had an opportunity to voice their perspectives (and those of their peers) in decisions around e-learning. 140 One conclusion drawn in that report was that “the low ratings given generally about organisational technology suggest that greater involvement from teaching staff would improve communication and ensure the views of teaching staff are heard; bridging the gap between strategic and operational considerations.” 141 Such involvement provides an opportunity to include end-to-end experiences in decision-making.

---

139 Adapted from Killen, Langer-Crame & Penrice, Teaching staff digital experience (p. 8).
140 Killen, Langer-Crame & Penrice, Teaching staff digital experience (pp. 6,9).
141 Killen, Langer-Crame & Penrice, Teaching staff digital experience (p. 6).
Actions/Next Steps for Recommendation 4

1. Convene both ad-hoc and standing forums for student and instructor input into virtual learning decision-making, including e-learning strategies, supports, and initiatives.

2. Develop data-driven, online-specific support services best practices, using the lived experiences of the teaching community and relevant external knowledge-keepers, to embed any advice originating outside of Indigenous Institute contexts.

3. Support the evaluation of e-learning programming, especially during pilots, by providing for both a peer-review process and an assessment of outcomes per se (e.g., learner satisfaction, content usability, and demonstration of learning. Note that this will require more institutional investment than is required for content development, while at present the former is usually weighted – if not the only activity supported, of the two.

4. Map currently available practices and supports in order to develop resource-sharing, lateral learning/knowledge mobilization, and mutual provisioning agreements (formal or informal) across Consortium members.

5. Understand the new “quick turnaround” provisioning paradigm – for example, microcredentials – as a cross-cutting imperative. This means shifting front-end (i.e., program approval) and back-end (i.e., program review) quality assurance processes to shorter and more regular timelines, and discovering ways to incorporate community perspectives in such accelerated processes without imposing additional burdens.

6. In all frameworks and processes, differentiate between student, staff, and instructor needs. These may overlap and show important consonances, but any divergences should be identified in order to “leave no one behind” in organizational growth.

7. Undertake the necessary consultations to guarantee the legal defensibility of capabilities “authorized” by II microcredentials.

8. Identify institutional “comparative advantage” in the emerging microcredentials market. Opportunities here are twofold: Skills-building that answers community needs in terms of labour market-readiness and/or advancement, and opening up new tuition streams through the kinds of programming that IIs are ideally positioned to provide (see listing earlier in this report).

9. Map existing curriculum with an eye to deconstructing boundaries between programs – in other words, find courses that can contribute to multiple program streams, whether ‘as is’ or by implementing “differentiated syllabi” (i.e., a different course outline for students pursuing different credentials). Students stand to gain immeasurably from the cross-fertilization of ideas, perspectives, and approaches that arise from sharing the learning space with individuals from other programs and credential pathways.

10. Consider Consortium activities that would support e-learning broadly, reducing the resourcing burdens on individual members. These could include, for example, a seamless transfer ecosystem within (at least) the Indigenous Institutes’ sector (including pathways mapping); a shared, core curriculum in programs that appear at several or all IIs; common orientation materials and resources; site delivery and other internal partnership agreements; and pooled marketing and recruitment.
RECOMMENDATION 5: INVEST – STRONGLY – IN EDUCATIONAL DESIGN

In discussions around Indigenous pedagogies in online spaces, there is a strong divergence of perspectives on whether e-learning is best viewed as an unfortunate necessity or a rich opportunity – including within and across Ontario’s Indigenous Institutes. Underlying this debate are conflicting views on the appropriate role of technology in transmission of, in particular, traditional knowledge (such as language), along with a lack of familiarity with the design and delivery options in e-learning. The former issue is beyond the scope of this report; the latter has the potential to change the whole conversation. Design in a digital environment can have more, and more complex elements than traditional course design – but there are also unique opportunities to engage, interact, demonstrate, and connect. In order to have a meaningful dialogue about the potential for e-learning to embed and enact Indigenous pedagogies, a foundational knowledge of available technologies is critical. Further, without this baseline understanding, fully informed, data-driven decisions about the future of program delivery at Indigenous Institutes (whether in-person, online, blended, or HyFlex) may be out of reach. Building that understanding will involve drawing out lessons from the evolution of educational design:

At the far end of this continuum, both User Experience Design (UX) and Learner Experience Design (LXD) approaches are in line with Indigenous pedological emphasis on student engagement and knowledge-building as a relational activity. While “user experience encompasses all aspects of the end-user’s interaction with the company, its services, and its products,” the newer “learning experience design […] is the process of creating learning experiences that enable the learner to achieve the desired learning outcome in a human centered and goal oriented way.” The need for such approaches, particularly the movement towards [LXD], is evident through recent findings that found that “the rapid move to remote learning has amplified the need for pedagogical learner-centred approaches with technology enhanced learning and teaching as an integral aspect of learning design. The number of students who engaged in active and collaborative digital learning practices was low.” Not only does student engagement in collaborative online activities emulate workplace practices, but it also connects students, addressing the (unfortunately common) experiences of isolation. The potential outcomes include the organic emergence of peer support networks and individual friendships, as well as a significant motivational boost.

Pursuit of LXD would foreground the other key success strategies highlighted elsewhere in this report, including:

- student "workflow monitoring"
- clear, efficient, frequent, and compassionate communication
- "experience personalization" (flexible engagement, self-direction, and self-pacing)
- prioritization of collaborative learning over individual expertise
- "mode choice" between face-to-face or online learning
- new perspectives on student and instructor roles
- venues and incentives for peer mentoring
- (re-)integration of assessment outcomes at every step
- balancing demands on students within and across all courses
- interventions that support collaboration
- techniques that reduce stress, fatigue, and errors related to e-learning

---

145 Killen & Langer-Crame, Student digital experience (p. 5).
146 Killen & Langer-Crame (p. 5).
Indigenous Learner Experience Design

There is, unfortunately, no Indigenous Learner Experience Design paradigm at present — and this presents a clear problem. LXD developed in the mainstream cannot be adopted wholesale, as Ontario’s Indigenous Institutes teach not merely material/historical facts or universal competencies but unique ways of seeing and being in the world. In such cases, experiential components of knowledge transfer are highly contextual, relational, and embodied, while none of these core perspectives explicitly inform LXD as it currently exists. Indigenous pedagogies involve fundamentally in-person approaches, such as land-based activity, nonverbal communication, in-the-moment dialogic reflection-application, and apprentice-mentor interactions. Further, students typically report the most success or satisfaction with the specific course elements, and they constitute the approaches least likely to be available (or of quality) at other postsecondaries. It may be that only portions of Indigenous Institutes’ courses and programs will ever be fully suited to online, blended/hybrid, or HyFlex applications — but these possibilities are worth exploring as they would open up vital learning opportunities to Indigenous students who otherwise cannot access II programming at all.

Mobile Device Considerations

Pedagogies across the Canadian higher education landscape have been strongly impacted by the uptick in student use of mobile devices. In considering platform adoption, then, attention should be paid to the differential access to cell versus broadband service, as well as use and accessibility of learning apps on smaller screens. Although it can be difficult to design learning activities to take advantage of mobile device applications and/or functionality, this task is considered essential. LMSs and mobile devices are “two staples in digital innovation that continue to have broad adoption and implications for student learning.”

Open Educational Resources (OERs)

The evolution of digital learning is an opportunity to expand organizational investment in Open Educational Resources (OERs). OERs are:

- course content, materials, or activities that are open, meaning that they are easily accessible by instructors and students. They may be free or low cost, are usually produced by members of the community rather than publishers or vendors, and are usually easily accessible rather than [contained] behind a paywall. OER solutions include repositories to locate [resources] and courseware or other technologies that help create and disseminate OER to students.

In addition to improving course affordability through the provision of free or ultra-low-cost educational materials, this emerging area of courseware design and distribution provides an opportunity to develop Indigenous-driven learning resources outside of the neoliberal educational publishing market. OER resources also provide teaching staff and organizations with the opportunity to harmonize the instructional approach and the principles of UX and LX. Ultimately: These are resources that hold significant promise right across the Third Pillar. A necessary precursor to OER production is a firm understanding of the interplay between principles of data sovereignty and information governance, copyright legislation and alternative copyright paradigms, and distribution licensing regimes. (Note that most mainstream institutions are pursuing e-learning strategies that include open education librarians, along with “learning technology rovers,” or paid students; however, it is unlikely that IIs could match this approach, for a number of pragmatic reasons.)


149 Joosten, Lee-McCarthy, Harness & Paulus (p. 22).

150 Joosten, Lee-McCarthy, Harness, & Paulus (p. 13).
Actions/Next Steps for Recommendation 5

1. Recruit subject matter experts in educational design (specifically: UX and LX) either as a shared ‘resource’ or within each individual II, to work with Indigenous curriculum developers and instructors in the redesign of rapidly-converted-to-online courses as robust e-learning offerings. Ensure that this process functions also as participant-observation research, in which one output is actual resources for ‘Indigenous Learner Experience Design’ (including, possibly, a future microcredential).

2. Develop culturally appropriate models of student engagement inside e-learning teaching spaces, as well as in co-curricular and extra-curricular activities; ideally, these should overlap and interact through year-round, extended program delivery planning that involves all academic and student services areas. Document successes so that these materials can be used to embed culturally appropriate models of student engagement in e-learning curriculum design.

3. Utilize “live feed” approaches to teaching online as an interim measure, pending development of more robust e-learning strategies for Indigenous teaching and learning. These can take place not only inside the classroom, but on the land (for example, real-time, participatory plant identification walks). Record these interactions for re-use and asynchronous access.

4. Conduct research on the intersection of mainstream and Indigenous approaches to data sovereignty and information governance, in order to reconcile competing paradigms in favour of Indigenous educational parity (i.e., placing the IIs fully on par with their mainstream counterparts). Where this “intersection” disadvantages IIs, draft awareness-raising/advocacy materials to seed future change.

5. Integrate the above research with a review of current publication practices and future publication plans across Consortium members.

6. Develop appropriate infrastructure, support, and incentives for the adoption of existing OERs across the Consortium.

7. Extend the HyFlex model to incorporate low- and no-tech elements for learners who currently face (hopefully temporarily) insurmountable access barriers. These can include packet learning, both paper-based and digital media-based, where lessons are indeed asynchronous but do not require internet access.

8. Utilize the existing VLS projects to amass a roster of potentially useful OERs in external repositories. Publish this roster, including hyperlinks, in annotated bibliography-style, with an abstract for each resource.

9. Develop a style guide for use in publishing in/with/through the IIC. Consider producing this as an OER unto itself, as Indigenous style guides are still rare and often either originate from outside Consortium members’ communities (especially Aotearoa and Hawai’i) or else passively champion prior, mainstream conventions.

10. Map opportunities for IIs to develop OERs that specifically and explicitly support Indigenous curriculum, Indigenous instructors, and Indigenous learners. Perform a careful risk analysis that evaluates both distribution licensing and copyright strategies to protect the IK and IP in these materials.

11. Where using hybrid/blended learning modalities, consider accumulating in-person elements at the beginning and end of the term, as these are the points at which students consistently express the most hesitancy, loneliness, and exhaustion. In particular, terminal classes in programs should endeavour to bring students together as a cohort, forming a resonant “capstone experience.” This also provides something tangible to look forward to as the term/semester progresses.
RECOMMENDATION 6: DEVELOP ROBUST E-LEARNING ASSESSMENT STRATEGIES

As previously noted, virtual learning does not yet have a fully developed assessment framework, despite both opening up new possibilities and levying unique demands. E-learning presents (or demands) approaches to assessment that are “more frequent, more easily tracked, recorded, collated, and reported, with learning analytics providing detailed analysis of individual and group progress, challenges, and comments.”\textsuperscript{151} It also facilitates integration of assessment directly into the learning process as, “in addition to earning grades, students become more self-aware and independent learners, increase their abilities as communicators and critical thinkers, and contribute to the analysis and creation of ideas and perspectives.”\textsuperscript{152} In the case of microcredentials, assessments gain additional importance as they must gauge competencies in a concrete way (i.e., using binary, pass/fail metrics) and this affirmation must be legally defensible, in order to address the risk employers assume when trusting the credential. More broadly: Virtual learning provides a chance to provide assessment beyond the traditional papers, test, and exams.

One element of virtual learning that may be particularly effective in developing student assessment and facilitating success in e-learning at Indigenous Institutes is the ability to encourage mastery learning, in which:

\[\text{Online tools that allow students to assess, improve, and re-assess their own learning are particularly effective in improving test results and final grades. Pre-tests reveal areas of weaknesses, accompanied by modules with instruction, demonstrations, and extensive banks of practice questions and explained answers. Students can repeat and re-test until achieving the necessary mastery.}\textsuperscript{153}\]

A second notable element is the prominence of peer assessment in e-learning generally, guided by clear and well-communicated criteria. With this method, “student markers get the experience of assessing and providing useful and constructive comments on another student’s work, as well as seeing alternative approaches to a topic they also addressed.”\textsuperscript{154} A third, important opportunity presented by e-learning assessment is the building of outcome portfolios that “bring together assignments, projects, and other examples of student work and function as valuable tools for students to reflect on, as well as demonstrate and track progress throughout their academic careers. These portfolios are used for submitting and commenting on assignments.”\textsuperscript{155} Strong e-learning assessment also fosters the development of other key skills including: Concision in communicating ideas, clear communication, critical thinking, constructive criticism, appropriate (especially culturally appropriate) online behaviour, researching, referencing, and co-development of knowledge/content. Unlike cumulative assignments, such as final essays or exams, regular online discussion (either ‘live’ or via asynchronous discussion boards) offer learners valuable opportunities to regularly demonstrate – and refine – these diverse skills.\textsuperscript{156}

\begin{footnotesize}
\textsuperscript{151} Contact North (n.d.) \textit{220 Pockets of innovation in online learning}, (p. 47).
\textsuperscript{152} Contact North (p. 47).
\textsuperscript{153} Contact North, 220 Pockets of innovation (p. 45).
\textsuperscript{154} Contact North (p. 45).
\textsuperscript{155} Contact North (p. 46).
\textsuperscript{156} Contact North (p. 46).
\end{footnotesize}
Overall, online assessment is best viewed as a toolkit that can:

1. Facilitate peer assessment & constructive criticism
2. Provide detailed, timely feedback
3. Support appropriate online conduct (esp. culturally appropriate conduct)
4. Build outcome portfolios of student work
5. Re-integrate results into learning at every step
6. Target learning to individual student needs
7. Develop skills in clear, concise, thoughtful communication
8. Allow on-demand re-testing, to self-evaluate new progress

**Actions/Next Steps for Recommendation 6**

1. Enrol select IIC instructors and curriculum developers in the eCO VLS course, “Indigenous e-Learning Assessment Strategies” during the pilot phase (approx. October 11, 2021 - November 27, 2021). Make the final course available, if not mandatory, as a professional development opportunity for an expanded roster of teaching and development staff.

2. Consider providing “on demand assessments,” allowing students to undergo evaluation independent of a structured program. This can be provided either to external candidates and alumni, for a fee, or current students, as part of the academic services provided under their tuition.

3. Explore outcome portfolios as a mode of assessment across all programs. These allow students to build an alternative resumé that, in addition to tracking their progress during their current studies, can be provided to other educational institutions, employers, art galleries, etc. The adoption of outcome portfolios would confer all of the benefits of the about-to-launch provincial microcredentials tracking system, while giving students a leg up on admission to further/advanced studies, jobs, and artistic vocations/avocations.

4. Develop an organizational or Consortium analytical framework for tracking participation, completion, and other meaningful statistics related to online learning.
RECOMMENDATION 7: EXPLORE ENTREPRENEURIAL APPROACHES

Although the terminology is slightly misleading, the UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training provides an “Entrepreneurial Learning Institution Canvas” (ELIC) that may be appropriate in developing the Consortium’s strategic approach to digital learning. This model has six core elements:

1. Developing your own potential to pursue wishes, hopes, dreams, and talents.
2. The ability to identify trends and opportunities; and to identify solutions and responses.
3. Developing valuable ideas.
4. Identifying the necessary resources.
5. Identifying and avoiding risks.
6. Putting ideas into action.
The report uses a definition developed by the European Commission, which understands ‘entrepreneurship’ as “supporting individuals operating in their everyday lives and in the workplace to be aware of the context of their work and be able to seize opportunities.” In this way, ‘entrepreneurship’ can be socially as well as professional oriented, in seeking to bring about positive change. The model’s principles serve e-learning that aims to develop and meaningfully support both personal and community self-determination. ‘Entrepreneurial learning,’ then, “seeks to foster self-esteem and confidence by drawing on the individual’s talents and creativity, while building the relevant skills and values that will assist learners in expanding their perspectives on schooling and opportunities beyond.”

The Entrepreneurial Learning Institution Canvas may, therefore, be useful in developing a strategic approach to e-learning development – including or especially microcredentials – regardless of whether one adopts the entrepreneurial focus. An adapted version of the ELIC is provided, below:

<table>
<thead>
<tr>
<th>Value Proposition</th>
<th>What value does this learning produce for students and the institution?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Group</td>
<td>Who are the target groups for this learning product?</td>
</tr>
<tr>
<td>Educational Competencies</td>
<td>What competencies will be strengthened in the learner?</td>
</tr>
<tr>
<td>Curriculum Approach</td>
<td>How can Indigenous approaches be embedded in the curriculum?</td>
</tr>
<tr>
<td>Key Resources</td>
<td>What resources will be needed?</td>
</tr>
<tr>
<td>Core Team</td>
<td>Who are the drivers of this form of learning at our institution?</td>
</tr>
<tr>
<td>Key Stakeholders</td>
<td>Who are the key stakeholders?</td>
</tr>
<tr>
<td>Assessment</td>
<td>How can these competencies be tested?</td>
</tr>
<tr>
<td>Channels</td>
<td>How can the benefits of these competencies be tested?</td>
</tr>
<tr>
<td>Organizational Structures</td>
<td>How can the institution support this learning at an organizational scale?</td>
</tr>
<tr>
<td>Key Metrics &amp; Monitoring</td>
<td>What indicators can be used to evaluate the impacts of this learning?</td>
</tr>
</tbody>
</table>

**Actions/Next Steps for Recommendation 7**

1. Explore harmonies between entrepreneurial learning and Indigenous principles that currently guide program development at the IIs, in order to develop a grounded process that embeds e-learning throughout the curriculum.

2. Investigate the potential for the Entrepreneurial Learning Institution Canvas to provide an adaptable framework for digital learning strategizing at IIC member institutions and/or the Consortium as a whole. Alternatively, consider using ELIC as a promising starting point for elaborating an Indigenous model.

---

158 Linder (p. 13).
159 Adapted from Linder.
RECOMMENDATION 8: LAY THE REGULATORY FOUNDATIONS

The drafting of this report was complicated by the fact that multiple accreditors, ministries, and other authorities were in the midst of developing regulations, pathways, and specifications throughout the process. Earlier, it was pointed out that no fewer than five different sectoral bodies are active in various mapping, exploration, or stabilization activities around microcredentials; over the winter and early spring of 2021, literally every week (and sometimes multiple times a week) new developments arose, or prior directions shifted. This happened as recently as April 23, 2021, when the provincial government announced the Ontario Micro-Credentials Challenge Fund.

Accordingly, this report can give only provisional advice on the regulatory processes that will soon structure microcredentials and virtual learning. Nevertheless, the foundations of both microcredentials and virtual learning are now, from a regulatory perspective, slowly firming up. Accordingly, initial steps to ensure eventual II-sectoral alignment, and the timely capture of emerging opportunities, can be made. The guiding documents for planning these steps are summarized, below.

Virtual Learning Guidance: PEQAB’s Draft Standards & Benchmarks for Online Programming

On April 15, 2021 Ontario’s Postsecondary Education Quality Assessment Board released draft standards and benchmarks for online programming. These are used to assess applications for program accreditation, constituting a quality assurance rubric for the university and private college sector.

<table>
<thead>
<tr>
<th>Area</th>
<th>Standard</th>
<th>Focus</th>
<th>Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Delivery</td>
<td>“The online program structure and delivery methods support achievement of the expected and actual learning outcomes.”</td>
<td>Feasibility</td>
<td>The online components of programs:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• are organized in such a way that students can achieve learning outcomes within the prescribed period of study with a manageable, plausible, and well distributed workload that takes into account all the time required of a student to fulfill the requirements of their program.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• the learning outcomes and level of manageable, plausible, and well distributed workloads is comparable to/the same as their in-person versions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The institution ensures that teaching methods:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• meet the technical and progression requirements</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• are suited to achieve the intended learning outcomes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• include provisions designed to meet accessibility needs of diverse learners.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• contribute to and enhance the creation of academic/professional community among students and between students and faculty.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>The institution ensures that the online components of programs are delivered in a way that encourages students to take an active role in creating the learning process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Online programming incorporates enhanced student orientation, including:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• the technology requirements for the online learning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• expectations concerning compliance with institutional policies as they relate to online programming.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• expectations concerning computer and digital information literacy skills expected for online learning.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• requirements for online learner interaction.</td>
</tr>
<tr>
<td>Area</td>
<td>Standard</td>
<td>Focus</td>
<td></td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Online programming includes, in appropriate ways, opportunities for students to provide input about program content and delivery.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution ensures that online programming maintains student engagement through regular faculty/student and student/student interaction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacity to Deliver</td>
<td>“The institution has the capacity to deliver the quality of education necessary for students to attain the stated and necessary learning outcomes.”</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution has or is developing a strategy for planned post-pandemic online programming.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Institutional policies, structures, processes, and resources are in place to guarantee the successful teaching and learning process of students.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution demonstrates appropriate academic leadership capacity and infrastructure to support the effective delivery of online education, including:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• numbers of academic and other staff to develop and deliver the online programs (including instructional designers, developers, LMS support staff, and/or their equivalents).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• learning and information resources for faculty and students to access.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• facilities to support and deliver online program(s), to support independent student learning and academic gathering, and to meet the demands of the projected student enrolment. The interdependence with other study programs is considered.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>All faculty delivering online programs are adequately trained for the mode of delivery, including in:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• technology and its use.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• accessibility provisions for diverse learners in accordance with AODA guidelines.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• issues pertaining to copyright and intellectual property issues (e.g., DRM and the use of object learning repositories).</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• best practices in online pedagogy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution provides ongoing support to meet the needs of faculty delivering online programs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• supports the professional development of faculty with regards to online education, including the promotion of curricular and instructional innovation, as well as technological skills, where appropriate.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• specifies faculty teaching and supervision loads and availability to students in the context of online course development and teaching.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The institution ensures that academic and student support services are accessible electronically.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Area | Standard | Focus | Benchmark
---|---|---|---
**Internal Quality Assurance & Development** | “The continuous quality of online programming is assured by effective quality assurance mechanisms for periodic evaluation.” | Program Review Policy | The institution has processes for the design and approval of online programming. The institution’s internal quality assurance processes ensure that curricula and instructional materials are appropriately designed and presented for online education. The institution uses appropriate instruments, processes, and information to ensure the effective management and continuous improvement of online programming and its delivery (e.g., regular reviews of faculty performance, course evaluations, student and faculty feedback, and data analytics).  

**Academic Freedom & Integrity** | “The institution maintains an atmosphere in which academic freedom exists and in which students and academic staff are expected to display a high degree of intellectual independence. Academic activity is supported by policies, procedures, and practices that encourage academic honesty and integrity.” | Online Learning Components | For any online programming, the institution has:  
• appropriate policies and procedures to address copyright and intellectual property issues (e.g., DRM and the use of object learning repositories).  
• appropriate safeguards to assure the authentication of student identity and the integrity of student work.  
• policies and procedures to assure the verification of student identity for coursework and examinations, and for the control of examinations, including but not limited to proctoring.  

**Student Protection Standard** | “The institution values and upholds integrity and ethical conduct in its relations with students.” | n/a | For courses and/or programs that incorporate any online delivery, students are informed about:  
• the technological requirements of participation and the technical competence required of them.  
• any additional costs, beyond tuition and ancillary fees, associated with online or distance learning aspects of course/program delivery.  
• the kind of support and protection available to them.  

The above rubric gains importance when considered in light of the Indigenous Advanced Education and Skills Council’s precedent of cleaving extremely closely to PEQAB standards and benchmarks in evaluating IIs’ applications for institutional and degree-level program accreditation. There is every reason to believe that IAESC’s anticipated online-focused pathways (for example, microcredentials) will significantly mirror the above.
Microcredentialing Guidance: eCO’s Open Competency Toolkit and Principles & Framework

On April 13, 2021 eCampusOntario unveiled its Open Competency Toolkit, an open-access resource intended to support the development of new, short-duration educational offerings in alignment with its prior Micro-credential Principles and Framework (referenced several times earlier in this report). Together, these instruments comprise the foundations of a provincial “common language” on postsecondary and industry/training competencies. The toolkit includes examples of existing competency frameworks, as well as templates for developing new ones. These templates are clearly based on the aforementioned UNESCO-UNEVOC International Centre for Technical and Vocational Education and Training’s “Entrepreneurial Learning Institution Canvas” (ELIC), but truncate the process pieces that would best inform/provide guidance to an Indigenous development model, as well as the philosophy underlying the ELIC (the “entrepreneurial approach” itself). The most useful of the templates is the one-page Competency Authoring Template (CAT), which is likely to reappear, in some substantively recognizable form, in the MCU’s pending microcredentials approval process.

### Actions/Next Steps for Recommendation 8

1. Assign the task of monitoring the regulatory landscape to an individual at each Indigenous Institute, or coordinate this task centrally between all members to reduce repetition and resource drains. Consider developing a regular dispatch that disseminates key updates to all Consortium members, including interpretations/applications and impact assessments of/recommendations on emerging developments.

2. Consider an SME-helmed initiative to draft the initial steps of an Indigenous Institutes Learning Design Canvas, in which Indigenous perspectives and pedagogies lie at the core. Targeted action at this stage could challenge the necessity-driven imperative to at best adapt, and at worst merely adopt premade non-Indigenous frameworks, while providing more relevant, legible, and user-friendly tools to under-resourced program development staff at the IIs.

3. Ensure that program proposal and launch is a centrally coordinated activity at each Indigenous Institute, and that academic development project management procedures are developed to ensure capacity is in place prior to applying for targeted funding.
RECOMMENDATION 9: ADVOCATE FOR TRUE INCLUSIVITY IN E-LEARNING FRAMEWORKS AND POLICYMAKING

Indigenous Institutes appear to be the inheritors of broader assumptions and approaches that mark the provincial policy landscape. These include the inconsistent inclusion of representative bodies at key tables; being invited late to policymaking processes; and a perception of ‘negative exceptionality’ in which Indigenous individuals, communities, and organizations are thought to have dedicated pathways and so do not warrant full inclusion in mainstream opportunities. Accordingly, although present at the inception of a fundamental shift in Ontario’s public education sector, and despite important advances in the relationship between government and Third Pillar education and training providers, not all of the policy conversations have been inclusive.

Incongruities that pointedly disadvantage Indigenous communities, teachers, learners, and providers emerge at the most foundational levels of recent educational initiatives. These start with a definition of “labour market readiness” that centres mainstream perspectives so firmly that there is little room for even post hoc incorporation of Indigenous experiences and understandings. For example, approaching un- and underemployment in Indigenous communities as issues of straightforward skills-building (or re-skilling) has a long and storied history, with many lessons now available to inform this latest initiative. The short version of this history is that explicitly technical solutions for fundamentally relational problems have not worked. Generations’ worth of evidence now support a different, more holistic view of the individual “Indigenous job-seeker” as facing challenges of both adaptation and application, rather than merely acquisition of knowledge. Working from this firsthand understanding, Indigenous Institutes have steadfastly advocated for a unique student-centred model that sees the learner as specifically socio-politically, temporally, and geographically located, so that their learning journey must be similarly rooted in their own Indigenous culture, history, and territory (whether or not they, themselves, are physically located on-reserve). Whether an Indigenous person flourishes in a job for which they are eminently technically qualified depends on a myriad of other ‘skills’ that do not seem to have a place in these latest provincial educational initiatives. Indeed, the development of principles of “equity, diversity, decolonization, and inclusion” in mainstream workplaces are a clear recognition of this fact.

Embedded Assumptions: Competency & Technology

The framing of ‘necessary skills’ naturally informs the definition of ‘competency’ and the concomitant issue of assessment. Indigenous pedagogies ask the learner how they would evaluate their current skills; how they would frame their skills-building in order to succeed as a whole, encultured person; and what skills they feel they need to acquire and integrate in order to participate in sustainable, fulfilling relationships (including employment relationships). The result is that “competency-based learning,” in an Indigenous context, can be neither pre-determined nor handed down. Indigenous learners would engage in self-assessment that, itself, would constitute a “competency,” requiring self-reflection and the location and triangulation of evidence, using cultural frames and lenses. Recently introduced tools seem to confer significant freedom in identifying core competencies, and this is a welcome development. There remains, however, some concern that competencies identified must still be validated by external authorities, who may or may not recognize/affirm the value or process embedded in Indigenous perspectives and methodologies.
A parallel concern stems from the fact that the current definition of microcredentials is extremely tech-forward, with internet access and platform functionality almost wholly enabling the sought-after individualization and customization (see the heavy use of phrases like “on-demand learning” and “experience personalization”). In short: Despite actually predating online learning, microcredentials seem to have been recently reconceived as near-exclusively online offerings. Indigenous Institutes question this path-dependency, which inherently excludes both their “digitally remote” learners and their approaches to bundling curriculum. Instead, Ontario’s IIs point to the rich opportunities to offer short duration learning that is co-constructed “in person and in place.”

**Representation and Parity of Inclusion**

‘Rollout’ events, especially ministerial announcements, often include every possible stakeholder but the Indigenous Institutes themselves; and when they do acknowledge or incorporate the Third Pillar, that embrace typically extends only to the Indigenous Advanced Education and Skills Council and not the Indigenous Institutes Consortium. This is prima facie unjust in forums where college and university membership organizations (i.e., COU, CICAN, and Colleges Ontario) are participants and the mainstream equivalents of IAESC (i.e., the Ontario College Quality Assurance Service, or OCQAS, and the Postsecondary Education Quality Assessment Board, or PEQAB) are not. Not being a membership body, IAESC does not hold either the ethical or the practical mandate to speak for the Third Pillar, yet it often presents itself as such. The effect of this misrecognition is threefold: It erodes the parity of the institutional membership organizations across the postsecondary education sector; it creates a ‘feedback loop’ where IAESC is now perceived and approached as the relevant Indigenous Institutional body, and frequently speaks as such; and overall, it arguably ‘walks back’ the growing recognition of Ontario’s Indigenous Institutes.

**Economic Drivers & Funding Norms**

Indigenous Institutes inevitably interact with more than one formal economy, making the pinpointing of specific, standalone “labour market drivers” difficult, while labour-market responsiveness must be clearly demonstrated in any microcredential submitted for accreditation. The on-reserve economy is not coincident with that in the most proximate Indigenous urban communities, never mind those of neighbouring non-Indigenous municipalities. Further, the government’s framing of microcredentials gestures primarily to a legible private sector and its business interests, while most IIs must (also) respond to the ‘First Nations Public Sector.’ These economies have very different parameters, presenting different demands and opportunities to the Indigenous learner seeking entry and/or upward mobility. Moreover, “building up” Indigenous communities means more than job creation; this is acknowledged in every mandate of every Indigenous Institute, in which a positive balance is sought within the dualism of sustainable employment and cultural resurgence. Relatedly, cultural programming such as Indigenous language (re-)acquisition is not framed, outside of Indigenous communities, as economically viable, and so lacks funding support outside of marginal envelopes. This framing is out-of-alignment with, for example, Canada’s multiculturalism policy that recognizes and supports the French language as both an inherent and an instrumental public good, and further, the driver of a thriving, multi-sectoral provincial economy. Given the chance, Indigenous languages (and other “cultural goods”) could similarly function as drivers of local and regional, diverse, flourishing economies.

Relatedly, while the new education sector directions and supports unveiled by the province are robust and exciting, they do not compliment the avenues of funding currently available to Indigenous Institutes. Two examples, here, are the national Post-Secondary Partnerships Program and community-based financing mechanisms, neither of which accord with the latest investments announced by the province. Practical reconciliations are critical, despite the complexities of jurisdictional boundaries, if the gains promised by the recent ministerial announcements are to apply equally to colleges, universities, and Indigenous Institutes. These will require material and immaterial resources, most importantly time, so that the spirit and intent of the Indigenous Institutes Act is not lost in the rush.
Actions/Next Steps for Recommendation 9

1. Draft a position paper or shadow report on the recent ministerial announcements that presents IIC member institutes’ collective perspective on planned shifts in the education sector. While the Indigenous Institutes’ voices have never been silent, a comprehensive policy-response document would erase the divides between the different channels into which they have been funneled, both focusing and amplifying this chorus. Such a document could both “travel” between ministries and claim a place in the archive/memory of this historical moment; and as such, it would be an instrument to which future initiatives could appeal and on which they could build.

2. Undertake activism to ensure that ministerial, etc. events and announcements include the official membership body of the Third Pillar, as well as those of Ontario’s colleges and universities and the II-accreditor.
Additional Resources & Recommended Readings


Contact Nord. (n.d.) 220 Pockets of innovation in online learning.


