**New Skills for the New Economy:**

**Micro-Credentials as the Key to Rethinking Higher Education in Canada**

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How can colleges and universities respond to the challenges of the post-COVID-19 world that will slowly begin to emerge as business, community and other activities “start-up” again? What are the key challenges they need to respond to?

## **Understanding Context**

The IMF suggests that the world is at the beginning of the biggest recession since the Great Depression of the 1920’s and that the global economy will take a considerable time to recover. Moody’s investor services suggests that a return to global growth will take years, not months.

Many of the “temporary” layoff’s reported in April and May will become permanent as business, government and non-profits slowly begin to re-open – not all will. Already, [seven out of ten restaurants see themselves as close to or past the point of no-return](https://toronto.ctvnews.ca/ontario-restaurants-will-struggle-to-reopen-their-doors-post-covid-19-survey-says-1.4928801) in terms of financing and debt – 10% have already closed permanently. In Ontario alone, 300,000 work in restaurants.

Governments at all levels will need to rethink every aspect of what they do, since the level of deficit and debt they necessarily incurred will lead to a restructure and reshaping of all of their activities, shrinking some activities and significantly expanding others.

Unemployment will be high for some time and competition for available jobs will be fierce. At the same time, colleges and universities will be financially challenged and will still need to operate under health-guidance – some courses will be online and more will be offered in a blended mode so as to protect staff, students and the community. They will need to rethink many aspects of what they do so as to meet social and community demand for learning.

This new world and emerging economy will make more use of technology enabled devices and systems to make work safe and possible. Care home robotics, already in use in Asia, will find their way into our Canadian eldercare system and more use of artificial intelligence and technology enabled systems will occur in a variety of sectors, including health, hospitality and tourism, transport and construction. There will be new demands for

## **Opportunities for a Paradigm Shift in Higher Education**

Some reforms of higher education are now both possible and desirable, given the personal, social and economic challenges that Canada now faces:

1. **A shift to competency rather than time**: Rather than focus on contact hours and credit weighting, it is time for colleges and universities to focus on competencies and capabilities: what is it that students need to both know and demonstrate so as to earn a credential and be able to compete for available work or advance their studies and learning?
2. **A shift to on-demand rather than semesters:** Rather than focus on semesters and current patterns of course and program offerings, it may be time to think of “on demand” learning – more start-dates and admission points, more flexible approaches to the deployment and delivery of learning. Limited start dates inhibit learning opportunities at a time when on-demand learning is not only growing, but essential.
3. **A shift to modular, stackable learning**: Rather than focusing on long courses – six week, ten week or twelve weeks – and programs – two, three and four years, it may be time to shift to short learning modules of 1-2 weeks of learning which is then assessed and “banked” in the learners portfolio. Modules can be stacked and lead to the award of credentials and be transferred into degrees and diplomas.
4. **A shift to assessment only credit**: Not all learners need to be taught before they can demonstrate knowledge, skills and capabilities. Many are self-taught, have experience derived from the current or past work or have been coached for mastery by an experienced friend, family member or colleague. Rather than having to register in a course or program of study, individuals should be able to undertake a competency-based assessment and secure recognition for their own learning. This is more than the current practice of prior learning assessment process – it is about the use of competency-based assessment on demand and rapid evaluation of demonstrable capabilities.

**What are Micro-Credentials?**

***Micro-credentials verify, validate, and attest that specific skills and/or competencies have been achieved. They differ from traditional degrees and certificates in that they are generally offered in shorter or more flexible timespans and tend to be more narrowly focused.***

1. **A shift to micro-credentials**: Employers and community organizations will have an abundance of choice of competent and capable candidates for any position they wish to advertise in the next 2-3 years. The questions they will ask is simple: do you have the skills and capabilities we are looking for and are you a good fit with the team we have in place. A degree or diploma does not provide the answer to these two questions. An e-portfolio, which showcases capabilities and skills (hard and soft skills) does. The growing use of modular, stackable learning linked to competency-based assessment completed quickly on demand and showcased through an e-portfolio better meets employer needs. MOOC providers have realized this. In 2019 some of the 110 million MOOC learners around the world took one or more of the 800 micro-credentials they made available.
2. **Increased work-based learning investments**: Canada lags behind other countries in the willingness of employees to continue to learn, according to the [Boston Consulting Group](https://www.bcg.com/en-ca/publications/2019/decoding-global-trends-upskilling-reskilling.aspx) (BCG), in part because we already have a highly educated workforce. But the new post-COVID-19 world requires constant learning and change. New public:private partnerships for learning, where a micro-credentials are offered in part at work and in part by a post-secondary institution online will help to sustain a highly skilled and productive workforce.
3. **Rethinking Apprenticeship**: The model for apprenticeship dates from the end of the 1890’s and the early part of the 1900’s. It focuses powerfully on the transfer of knowledge from a journeyman to apprentice, reinforced by quality learning from colleges and done over a considerable time period. This model developed before the internet began to impact learning in 1994 and before the emergence of powerful, video-based assessment tools for competencies. By shifting to a mastery model where the apprentice needs to demonstrate consistent mastery of specific competencies assessed not only by their mentor but by experts in the field, the time to completion can be shortened and the number of completers dramatically improved.

Most learning, [according to Boston Consulting Group,](https://www.bcg.com/en-ca/publications/2020/fixing-global-skills-mismatch.aspx) is now self-study – using YouTube, free to learn courses from a provider like Coursera, FutureLearn or edX or through some other resource, or paid for flexible short courses – followed by on the job learning. About a third of learners seek courses and continuing education from traditional institutions. Over half of employees or job-seekers engaged in learning will find their knowledge and skills from online learning providers or through an application they can use on a hand-held device. Now that more colleges and universities have seen the potential of online learning, it will become a more substantial feature of the landscape of higher education and adult learning.

## **Micro-Credentials Are the Key to Unlocking the Power of Higher Education**

Universities and colleges have long cherished the degree and diploma as the bedrock of higher education. In part this is because the length of time a student is learning permits deep-learning and the development of advanced knowledge and skills. The demand for degrees and diplomas will, though reduced, remain. Bit these long programs also provide the basis for predictable funding, which in turn enables the continued employment of faculty, support staff and administrators and the rationale for capital expenditure.

But our emerging new world also now requires a faster, more responsive, direct and flexible approach to the acquisition of knowledge, capabilities and skills. Micro-credentials – modular, stackable, on demand – provide a creative response to this opportunity. They will also enable Canadian colleges and universities to blur the distinction, increasingly meaningless, between continuing education and “for credit” programs as a micro-credentials become transferable to degrees and diplomas, as they already are in several Canadian institutions.

Micro-credentials will meet the urgent need for those out of work who need to upskill to get work and for those in work who need new skills. They will also provide needed flow of students and funds to our colleges and universities. They will become the new building block of our higher education system provided that they are funded appropriately by the governments that see them in this way. Rather than focus on credit hours and time-served, micro-credentials shift the focus to securing verifiable learning outcomes assessed in authentic ways.

Micro-credentials from Canadian universities and colleges are a highly exportable product and service which would be attractive to students around the world, many of whom will also be facing constraints on travel, learning and work. As the demand for Canadian credentials from international students falls and will take time to return, international students will find on demand, modular, stackable, relevant learning an attractive proposition that they will be willing to pay for and study online, especially if they are subsequently transferable to degrees and diplomas.