

What are Universities for?

Trends in Higher Education

Prepared by Teaching and Learning Services for the Future of Teaching and Learning Working Group
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Introduction

In this document, we summarize challenges, opportunities and data that are recurrent in today's conversations about reimagining the future of post-secondary education. These trends were drawn from a wide range of academic and non-academic publications from global and local perspectives.

For ease of reading, we clustered the trends into three broad categories, reflecting trends related to:

1. Reimagining teaching, learning and student success
2. Reimagining campus-to-career pathways
3. Reimagining the university business model.

Reimagining Teaching, Learning and Student Success

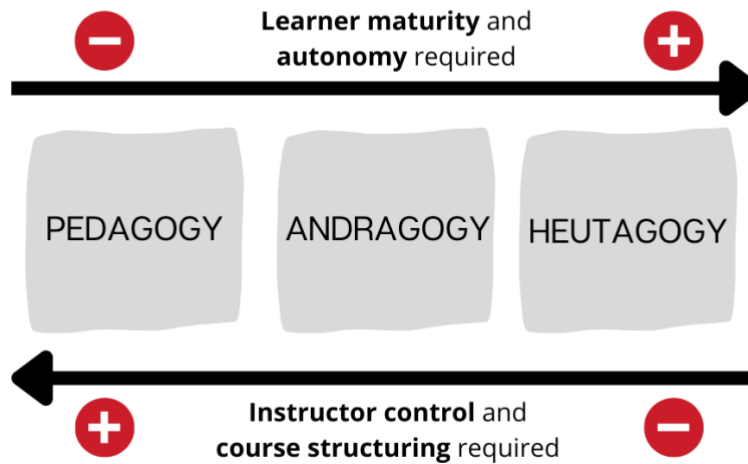
The ongoing COVID-19 pandemic has highlighted opportunities—and gaps—in post-secondary education. The impact of the pandemic will continue to be felt over several years as instructors and students shift from emergency remote teaching and learning toward more stable and intentional pedagogical environments. Time and continuous reflection will highlight which pandemic-driven practices we want to pursue long-term and which to leave behind.

On the one hand, the pandemic-induced closures in early 2020 swiftly increased innovation in **online and hybrid learning opportunities** (Alberta Advanced Education, 2021; Pelletier et al., 2021; Perkins & Will, 2022; Statistics Canada, 2017). Now, more universities are offering opportunities to learn online, in-person, or a combination of both (e.g., blended, HyFlex), which collectively offer students flexibility in terms of when, where, and how they learn.

This move to digital learning significantly accelerated the **evolution and adoption of educational technologies**. Current learning management systems (LMS) and their associated external tools (Zoom, Poll Everywhere, H5P, etc.) allowed teachers to engage their learners with academic content in diverse ways online—for example, short “chunked” video lectures, multimodal asynchronous discussions, interactive lessons, and remote guest presentations and field demonstrations, to name a few. LMS’ “intelligent agents” use learning analytics to flag students-at-risk, monitor engagement levels, or otherwise identify early warning signs that may impact learning. As instructors have gained additional technological skills during the pandemic, they may plan to retain some of the successful strategies employed during online learning once back on campus.

Many of these emerging approaches (e.g., flipped learning; Statistics Canada, 2019) show promise for facilitating the move away from universities' traditional knowledge-transmission, teacher-centric models (“sage on the stage”; i.e., *pedagogy*) to **facilitation-oriented, learner-centric models** (“guide on the side”; i.e., *andragogy*). This shift supports universities' ongoing attempts to increase experiential learning opportunities (which are inherently learner-driven) and decolonize post-secondary education to nurture different knowledge systems, voices, and ways of being.

DIFFERENCES BETWEEN PEDAGOGY, ANDRAGOGY, AND HEUTAGOGY



Likewise, post-pandemic, we may be better positioned to explore additional **emerging technologies for educational purposes**, such as adaptive learning technologies, extended reality (XR; including augmented and virtual reality) technologies; artificial intelligence and machine learning; learning analytics; Makerspaces (Geiger, n.d.); open educational resources (OERs); and pedagogical applications of learning engineering and UX Design (Pelletier et al., 2021). Emerging educational technologies—and the opportunities they present to the post-secondary sector—can be integrated strategically to maximize engagement and produce purposefully built media-rich courses and learning experiences.

On the other hand, the pandemic highlighted **existing gaps between learners** with and without access to reliable internet and learning technologies, safe and productive work/study spaces, and essential support services. In 2020, 40% of Canadian post-secondary students worried about the credentials they earned during the pandemic not being considered equivalent to those earned in non-pandemic times (Statistics Canada, 2021a). Additional strain came to the 48% of students who were laid off from their jobs and the nearly 50% of unemployed students who lost job prospects as a result of the pandemic (Office of Institutional Research and Planning, 2019b). International students were particularly impacted, as pandemic-related campus closures, job cuts, and delayed travel and visa arrangements were particularly disruptive (Statistics Canada, 2020; Varughese & Schwartz, 2022).

Faculty were also impacted by the need to adopt and adapt potentially unfamiliar educational technologies and teaching approaches overnight in addition to experiencing delays in their research programs (Harrop et al., 2021; Jackman et al., 2021). There are many reports of mental exhaustion due to increased workloads and the lack of “human connection” with students and colleagues on top of significant challenges related to pandemic work-life balance, with women, LGBTQ2S+, and people of colour disproportionately strained (Flaherty, 2020; Ontario Confederation of University Faculty Associations, 2020; The Chronicle of Higher Education, 2020).

The pandemic and its various impacts aside, there is a growing trend of making pathways to a university degree more flexible. Universities are considering **alternatives or supplements to traditional four-year degree programs** to better appeal to learners seeking more targeted and more flexible learning commitments (Alberta Advanced Education, 2021; Pelletier et al., 2021; Perkins & Will, 2022). **Micro-credentials** can, for example, book-end degrees (e.g., bridge-in, postgraduate re-skilling), be “stacked”

to replace a degree, and/or be integrated into degree programs. Whatever their structure, micro-credentials (along with certificates, diplomas, etc.) give learners bite-sized, “just-in-time” skills development on targeted topics immediately relevant to today’s workforce needs (Chaktsiris et al., 2021).

There is increasing pressure for universities to emphasize employability skills development, yet they also play a significant role in advancing knowledge and action around social and environmental issues. The pandemic years have emphasized that we are in an age of increasing political polarization, and universities are increasingly valuable as **safe spaces** for conversations and activities around **wellness, mental health, and EDI** (equity, diversity, and inclusion, including accessibility), and to foster empathetic and democratic **global citizens** (Brennan et al., 2021; Davie, 2022; Pelletier et al., 2021; Spooner, 2022). Universities have the opportunity to become “a more effective partner and support in building a more equitable, sustainable, and evidence-driven future for Canada,” even more so as we collectively rebuild post-pandemic (Brennan et al., 2021, p. 871). Student-centred approaches to university teaching and learning can foster **creative exploration, risk-taking, and out-of-the-box thinking** about problems that matter to them and impact their communities (Davie, 2022).

In a similar vein, some universities are revisiting the traditional discipline-based structure (e.g., Bachelor’s of Science in Biology) and considering instead (or additionally) domain-based degrees (e.g., Bachelor’s degree in Oceans; Usher, 2020), where students can pursue **degrees that address real-world challenges** and align with their imagined future, which has been shown to improve student retention (Usher, 2020). As one commentator stated, “Today’s students arrive on campus expecting their educational experience to actualize their personal values regarding social purpose and to elevate the realities of equity, justice, and diversity” (Perkins & Will, 2022, par. 5). Alternative degree structures such as micro-credentials, described above, are one potential avenue to consider. Broadly, the increasing demand for authentic, relevant learning experiences highlights the importance of exposing students to different knowledge systems and underscores the role of instructors as facilitators of learning in these settings.

Reimagining Campus-to-Career Pathways

The reality is that **more jobs now require university degrees**, even those that could previously be completed without a degree—this phenomenon is called “degree inflation” or “credential creep” (Sim & Seki, 2018). Degree inflation has created an artificial prerequisite for jobs that has “driven more people to turn to post-secondary programs to secure basic stable employment, despite having little interest or confidence in academia” (Crossman, 2022, p. 220). For context, as of 2018, just under 30% of the working-age population (15-64 years old) in Canada had a university degree, versus 15% in 1997 (Park et al., 2020).

In other words, **more (and more diverse) people are heading to universities** to secure a job. Universities, with provincial and federal government support, are making targeted attempts to help their students “thrive in the labour markets of today and tomorrow” (Universities Canada, 2019, par. 1), and especially reach those who were not previously attending. For example, 34% of recent immigrants from China obtained their degree in Canada (Statistics Canada, 2017). Roughly 10% of First Nations, Inuit, and Métis currently have a university degree (Universities Canada, 2015); over 70 Canadian universities have built with partnerships with Indigenous communities to increase this figure (Davidson & Jamieson, 2018). Recent efforts have also been made to reduce barriers for student veterans seeking post-secondary education after completing their service (Cable et al., 2021; Government of Canada, 2021).

A significant push has also been made to accommodate **professionals returning to university**. Roughly 30% of 2012 post-secondary graduates returned to study within five years (Statistics Canada,

2019b), and that rate is likely to increase as micro-credentials, diplomas, certificates, and other **flexible learning pathways** provide additional flexibility and targeted skills and knowledge development for mature students. Overall, there are significant opportunities for universities to consider, for example, tailored offerings, innovative curricula, and increased community and industry partnerships to meet the increasingly diverse needs of learners (Cable et al., 2021).

In response to shifting public funding models and the increasingly pressing and diverse needs of students, employers, and the community, universities have been **fostering core employability skills integration and development**. These skills are being embedded in programs through, for example, work-integrated and experiential learning (e.g., internships, applied research projects). **Experiential learning (EL)** refers to activities such as field trips, study abroad, work placement, etc., that are followed by critical reflection. EL has been shown to promote academic engagement, deep learning, and higher-order thinking skills (Wurdinger & Marlow, 2005).

EL also promotes students' readiness to integrate into the labour market and community and provides good public relations with regional, provincial, and national stakeholders (Roberts, 2018). Advances in **technology** (e.g., web-conferencing, mobile devices, augmented/virtual reality) have further increased opportunities for experiential learning by facilitating collaboration in new ways, as learners can participate remotely from any location (Huang et al., 2020; Zwerg-Villegas & Martínez-Díaz, 2016). Critically, by targeting core employability skills in students, universities prepare graduates for the diverse careers they will eventually pursue, often outside of their primary discipline of academic study.

Public Funding and Future Models for the University

The reduction of public funding for post-secondary education has increased universities' **reliance on tuition fees** as a revenue source. International students are especially vulnerable to tuition hikes (Higher Education Quality Council of Ontario, n.d.), with the average tuition cost for Ontario's 90,000+ international undergraduate students (Statistics Canada, 2021b) at nearly \$40,000 in 2020, up from roughly \$15,000 in 2006 (Higher Education Quality Council of Ontario, n.d.). Professional degrees are increasingly expensive for everyone, causing some students to take on upwards of \$60,000 in debt (for comparison, the average debt upon graduation is \$23,000 for non-professional degrees; Statistics Canada, 2021a).

As a result, many university students work while they study (i.e., "**learning while earning**"; Davie, 2022) to offset the cost of getting a degree. A Statistics Canada report found that 85% of Canadian post-secondary students were combining work and study (Frenette et al., 2019) to reduce financial barriers to post-secondary education (Alberta Advanced Education, 2021). Unfortunately, eligibility for funding (e.g., OSAP, scholarships, awards) and visas for international students often requires students to maintain full-time status—between three to five courses per term for undergraduate students—regardless of employment status.

For context, roughly one-quarter of Carleton's **first-year students** report working while studying, and another 36% are looking for work. Of those who are working, the average number of hours is 13 hours per week (Office of Institutional Research and Planning, 2019b). This proportion increases for middle-year undergraduate students (55% are working an average 16 hours per week) and upper-year undergraduate students (58% are working an average 20 hours per week; Office of Institutional Research and Planning, 2020, 2021). Working 15+ hours per week has been shown to have a **negative impact** on retention and graduation for full-time students (Office of Institutional Research and Planning, 2019a [internal and confidential]).

| Impact of Work on Academic Performance Middle and Final Year Full-Time Students | | | | |
|--|----------------------|-------------------|---------------------|-------------------|
| Hours Worked | Middle Year Students | | Graduating Students | |
| | % Hours Worked | % Negative Impact | % Hours Worked | % Negative Impact |
| 10 or less | 24 | 25 | 13 | 22 |
| 10.5 to 15 | 34 | 46 | 29 | 38 |
| 15 to 20 | 23 | 50 | 28 | 58 |
| 20.5+ | 19 | 76 | 30 | 52 |

Negative impact includes *very negative* and *somewhat negative* (other responses: *no impact*, *somewhat positive*, and *very positive*). % hours work indicates % of total sample reporting, % negative impact = % of those reporting indicating work had a *somewhat* or *very* negative impact.

Nonetheless, the demand for university degrees is likely to remain, as **university graduates earn 43% more** on average than their peers without a degree (Statistics Canada, 2021a). University graduates in education-intensive jobs (i.e., professional jobs—accountant, lawyer, teacher) have also been found to be more resilient to major shifts in the job market (e.g., the pandemic; Park et al., 2020).

Despite this ongoing demand, retention rates are inconsistent across universities and programs (see, for example, Office of Institutional Research and Planning, n.d., Table K2A). Moreover, the students-as-consumers model has been shown to negatively impact students’ academic performance (Bunce et al., 2017), and student burnout, disengagement, and uncertainty about the future are at their peak (McMurtrie, 2022). Currently, educational programs (via tuition fees) are one of the university’s only levers to improve its fiscal circumstance; it is time to ask, what else can we do to **improve the university budget** in the face of decreasing provincial investment?

Could universities lean into **transition programs** for students coming from high school, the workplace, or abroad? Could **industry-sector partnerships** be leveraged to develop more affordable and more targeted micro-credentials and professional development programs (e.g., up-skilling, re-skilling)? These approaches may attract more diverse learners (non-traditional learners, newcomers to Canada, etc.) and streamline their pathways to job market-relevant skills and networks. Existing technologies could contribute to the transition (e.g., learning analytics as a diagnostic tool for early predictors of success/challenges) but would likely need to be paired with additional resources and a cohesive institutional approach to be successful (e.g., dedicated advisors).

Ontario’s new “made in Ontario” funding model and performance metrics for post-secondary education offer an additional incentive for universities to consider their role in preparing graduates for the future world of work (Government of Ontario, 2021; Ministry of Advanced Education and Skills Development, 2018). To take effect 2022-2023, the new model is based on **graduate employment and earnings outcomes** (Government of Ontario Newsroom, 2020; Peters, 2021). Universities are attempting to better articulate the pathway from campus to career through initiatives that target **skills integration and**

articulation, such as higher-order thinking skills (e.g., synthesizing, reasoning), 21st century skills (e.g., critical thinking, communication), and **interdisciplinarity** to help students deal with uncertainty in a fast-evolving digital economy (Alberta Advanced Education, 2021; Davie, 2022; Pelletier et al., 2021). Universities are also redirecting teaching and learning to **better align with social and industry needs**—including, for example, responding to the skills and technology demands presented by the ongoing climate crisis (Alberta Advanced Education, 2021; Pelletier et al., 2021).

In closing, any discussion of university business models must be contextualized within the reality and consequences of reduced public funding, including fewer full-time continuing faculty positions and a reduction in teaching resources (Pasma & Shaker, 2018). As universities reconsider the way they operate, it will be necessary to recognize that there continues to be a reliance on a **precarious teaching workforce** (i.e., the “gig academy”; Kezar et al., 2019) for whom there are far-reaching negative effects, including job insecurity and limited involvement in programmatic decision-making. For context, 41% of Canada’s university teaching faculty are on short-term, part-time contracts (Pasma & Shaker, 2018); at Carleton, that number is roughly 46% (Carleton University, n.d.). Students may have **reduced access** to contract instructors, which can negatively impact student success (Pasma & Shaker, 2018). Contract instructors may also underestimate (Hudd et al., 2009) and be less likely to report (Blau et al., 2018) instances of **student academic misconduct**. Additionally, since contract instructors are paid only for teaching, full-time faculty carry the full responsibility of departmental administrative duties (Pasma & Shaker, 2018).

Overall, these trends provide ample inspiration for Carleton in terms of ways we can shape the future of teaching and learning to promote student and faculty success and meaningful community impact.

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