Charting the Course

The Future of Higher Education in Canada

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Research by

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Information and
Communications
Technology Council

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et des communications

Preface

The Information and Communications Technology Council (ICTC) is a not-for-profit, national centre of expertise for strengthening Canada's digital advantage in a global economy. Through trusted research, practical policy advice, and creative capacity-building programs, ICTC fosters globally competitive Canadian industries enabled by innovative and diverse digital talent. In partnership with an expansive network of industry leaders, academic partners, and policymakers from across Canada, ICTC has empowered a robust and inclusive digital economy for over 30 years.

To Cite This Report

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Background

In 2023 and 2024, ICTC convened six roundtables to discuss the role that higher education plays in preparing students for a rapidly changing workforce and technology landscape. At each roundtable, a group of invited professionals discussed the role that higher education currently plays in preparing students for the workforce and how this role may need to adapt over the next 10 years due to the impact of transformative technologies on the Canadian workforce.

Participants explored how technologies like generative artificial intelligence (GenAI) are transforming higher education, what mechanisms are needed within higher education to ensure students are work-ready, and what programs are needed to support higher educational institutions in preparing students for the workforce, such as work-integrated learning (WIL). This brief summarizes the input provided by higher education professionals, offering a vision for higher education excellence for Canada over the next 10 years.
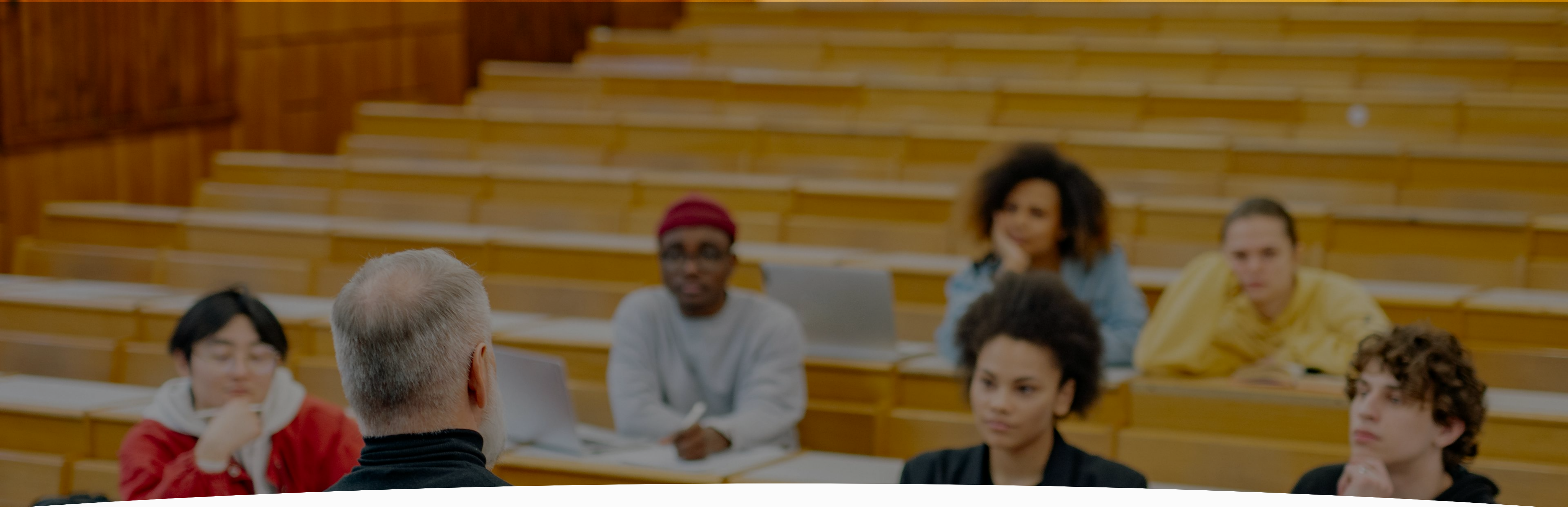
About ICTC's Higher Education Roundtables

From December 2023 to November 2024, ICTC held six higher education roundtables across Canada. These roundtables took place in Canada's main technology hubs: Calgary, Halifax, Montreal, Ottawa, Toronto, and Vancouver. In January 2024, ICTC delivered a presentation on the main findings of this work in Montreal at the annual Dean & Directors' Meeting of the Canadian Association for University Continuing Education (CAUCE). Here, leaders across the Canadian continuing-education landscape had the opportunity to explore the key takeaways of this research, review and validate results, and suggest further areas of exploration.

Roundtable Participants

The roundtables engaged 120 participants from 69 different organizations across Canada, including 21 universities, 13 colleges, five polytechnics or institutes of technology, one CEGEP, and a variety of other organizations focused on education excellence, workforce development, and workforce equity and inclusion.

Participants held influential positions within their organizations, including titles like Executive Director, Director, Academic Chair, Dean, Associate Dean, Associate Vice President, Program Chair, Program Head, Manager—Career Centre, Manager—Process Enhancement, Manager—Co-Op Office, Manager—Continuing Education, Manager—Curriculum Development, Instructor, Professor, Associate Professor, Assistant Professor, Career Education Coordinator, Program Coordinator, Skills Development Advisor, Career Coach.

City	Number of Organizations	Number of Participants
Calgary	13	18
Halifax	11	23
Montreal	9	15
Ottawa	4	10
Toronto	17	27
Vancouver	15	27
Total	**69**	**120**

Figure 1. Number of cities, organizations, and individuals engaged during ICTC's six higher education roundtables.

Roundtable Discussion

At each roundtable, participants were split up into groups of approximately eight to 10 people and were guided by ICTC facilitators through a series of discussion questions. The discussion questions were split into two core sessions.

The first session focused on how emerging technologies are transforming education. During this session, participants were asked:

- How are technologies like AI reshaping the education landscape?
- What other technologies are playing a salient role in changing how knowledge is produced, distributed, and assessed?
- What strengths does higher education have—and in what ways is higher education already designed—to respond well to emerging technologies in the classroom?
- What weaknesses undermine higher education's ability to respond well to emerging technologies in the classroom? What aspects of higher education will emerging technologies disrupt?
- What opportunities do emerging technologies create for higher education? What adaptations have you seen in higher education thus far? How well are they working? What still needs to be done?
- What threats might prevent these opportunities from being seized and why? How can these threats be mitigated?

The second session focused on how higher education prepares students for the workforce. During this session, participants were asked:

- What does it mean for students to be job-ready?
- Is the central purpose of higher education job readiness? Why or why not?
- If one of the central purposes of higher education is job readiness, what is needed within higher education to make students job-ready? What role do supplementary add-ons like work-integrated learning (WIL) play in making students job-ready?
- What role do learning models like online courses, micro-credentials, and experiential learning play in higher education?
- What strengths does higher education have—and what does higher education do well—to prepare students for the workforce?
- What weaknesses does higher education have when it comes to workforce development?
- What opportunities are there to address these weaknesses? What adaptations have you seen in higher education thus far? How well are they working? What still needs to be done?
- What threats might prevent these opportunities from being seized? Why? How can these threats be mitigated?

At the end of each discussion session, participants were amalgamated into one large group, where they were asked to share key findings. For example, participants highlighted the innovative ways higher education teaches students transferable, work-ready skills—including work-integrated learning (WIL), career counselling, micro-credentials, capstones, and other applied projects—and posited what additional strategies may be needed in the future to respond to technologies like GenAI. This brief summarizes the input provided by higher education professionals, offering a vision for higher education excellence for Canada over the next 10 years.

Key Findings

Transformative Technologies are Impacting the Canadian Workforce

Information and communications technologies (ICT), such as software, big data, internet of things (IoT), and AI, are having a profound impact on the Canadian workforce. Whether related to technology design, development, deployment, or use, Canadian workers increasingly need digital technology knowledge and skills. By the end of 2023, more than 1.18 million people were employed in Canada's ICT sector, which means approximately 5.8% of employed people in Canada worked in tech.[1] Because technology solutions are being adopted in all Canadian sectors, including agriculture and food, real estate, manufacturing, and transportation, even more workers use technology solutions in their daily workflows despite not working in the ICT sector per se. For example, approximately half of digital technology firms in Canada report using security software tools, collaboration tools, cloud solutions, digital technology to move business operations or sales online, AI, machine learning, and software or databases.[2] Meanwhile, one-quarter to one-third of non-digital-economy firms report using collaboration tools, cloud solutions, and security software tools.[3]

Unfortunately, due to the rapid pace of technological change, Canada's workforce faces extensive labour shortages related to digital technology knowledge and skills. Firms that develop technology products and services report high competition for technology workers, such as software engineers, web developers, data engineers, data analysts, DevOps engineers, system administrators, data scientists, and security analysts.[4] Technology firms operating in niche technology verticals, such as agri-food technology or transport technology, report difficulty finding tech workers with suitable domain knowledge for their area of business.[5] Firms across the economy report difficulty finding workers with experience using digital technology solutions and with the knowledge and skills needed to identify relevant technologies for their business and incorporate these into their workflows.

Digital economy labour shortages pose a significant threat to the health of the Canadian economy. The ability of Canadian companies to develop and adopt digital technologies is crucial for Canada to stay competitive and achieve economic growth. High-technology assets like data and intellectual property (IP) play a growing role in whether modern businesses are successful, contributing to factors like company valuation, ability to raise capital, likelihood of exit, projected export volume and growth, and revenue growth.[6]

This reality signals how urgent it is for Canada to adequately prepare students and workers for the workforce, including the knowledge and skills to design, build, deploy, and use technology solutions.

Transformative Technologies are Impacting Higher Education

Participants in ICTC's higher education roundtables signalled that digital technologies are impacting not only the Canadian workforce but also higher education. When asked what types of technologies are transforming the higher education landscape, participants spoke about a variety of opportunities and challenges.
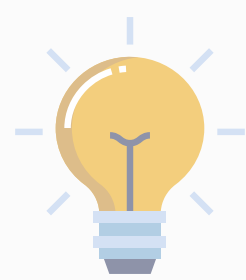
Opportunities for Technology in Higher Education

Participants also spoke about the impact that learning management systems have been having on education over the past few decades. Learning management systems improve the student experience by making a variety of course materials readily accessible in one place. While this can be very helpful for some students, participants noted that students who are not as familiar with technology may miss core pieces of the curriculum. That is, those without foundational digital skills may struggle with accessing and making the most of their learning journey.

Reflecting on the proliferation of remote learning during the pandemic, participants highlighted many opportunities associated with remote and distance learning. They noted that, in some ways, remote and distance learning democratize education. By enabling students to learn from remote communities and attend higher education without needing to relocate to large urban centres, the landscape of education opens up to those who may have otherwise struggled to access it. In this way, remote learning offers students greater choice and flexibility. Remote learning also provides students with real-world experience using remote collaboration tools, such as cloud storage solutions, shared

documents, and video conferencing tools, which are plentiful in today's employment landscape. However, the benefits of remote learning are still primarily accessible by people with consistent access to high-speed internet. As of 2022, just 67.4% of rural households have access to unlimited high-speed internet.[7]

Participants also noted that remote and distance learning tools can increase administrative burdens for educators. This is particularly the case if they need to duplicate learning materials and experiences for in-person *and* online learning environments. Some participants also felt that for remote learning to be delivered successfully, educators could benefit from specific training in best practices related to remote teaching. Without this, some felt that remote learning could "depersonalize education" and prevent students from acquiring critical interpersonal and networking skills, such as communication, teamwork, and general workplace skills. Previous ICTC research (from the parental perspective) on the shift to e-learning during the pandemic echoes this sentiment. Parents worried that the proliferation of online education could have an adverse impact on students' so-called "soft" skills. Specifically, parents voiced concern about limited socialization in online learning and whether that would slow the development of communication skills, personal growth, and maturity.[8]

Many participants spoke about the impact of speech-to-text tools like DragonNaturally Speaking, GenAI tools like ChatGPT, translation tools like Google Translate, and writing tools like Grammarly. They indicated that, on the positive side, these types of tools reduce the amount of friction that some students feel when partaking in higher education programs. For example, students who have writing-related learning disabilities may benefit from a tool like Dragon Naturally Speaking or ChatGPT, which can help them overcome barriers to written communication. Students who do not speak English or French as a first language can similarly benefit from translation tools. Finally, students who are learning very technical skills and do not need to be as proficient in grammar or spelling may benefit from tools like Grammarly. However, participants also noted that when used without the necessary guardrails, these types of tools can lead students to circumvent learning and assessment, which can, in turn, reduce educators' ability to assess students and students' ability to build competencies in writing and other important skills.

While a handful of participants saw GenAI tools as a threat to the integrity of higher education, most saw an opportunity for educators to use GenAI tools like ChatGPT to refocus the purpose of learning. They commented on how GenAI tools could be used to handle routine inquiries or administrative tasks, freeing students up to focus on more complex projects or more creative work. For example, one educator, an English professor, shared that instead of getting students to spend time drafting copy, they are having students generate copy using ChatGPT, and instead of drafting, spend their time editing and improving. Educators from technology-focused faculties, such as computer science and computer linguistics, highlighted that many technology employers already expect students to be able to integrate GenAI solutions into their technology products and services. Accordingly, they felt that not incorporating GenAI into curricula would do a disservice to students, preventing them from being truly "workforce ready." Similarly, given that AI is likely to automate many low-level tasks that humans complete today, it is important for higher education institutions to adapt their curricula to teach students value-added skills that are less prone to automation and to teach them to be agile, ready to face future changes and technological evolution.

Looking forward, some participants highlighted the potential future of adaptive or personalized learning systems, specifically tailoring curricula to the unique level or needs of the student. Some saw this as a situation where students will complete an assessment, and the course material will be updated to suit their specific learning needs. Participants noted how technology will be an important enabler of personalized learning, potentially curating courses for students and providing e-coaches to enhance the learning experiences.

On the administrative side, post-secondary leaders discussed the role of technology in streamlining administrative processes related to enrolment, scheduling, and grading. While many saw this as a means to build efficiencies and generate cost savings, again, they clarified the need for guardrails and best practices when using AI and automation, especially in high-stakes environments, such as enrollments and grading.

⚠️ Challenges from Technology in Higher Education

While participants highlighted many opportunities for technology in education, they also highlighted challenges.

The primary challenge participants noted was the digital divide, which is a term used to describe unequal access to technology. Participants commented on how students have unequal access to broadband infrastructure, technology devices, and even personal contacts with technology knowledge and skills. Where less than 65% of rural communities in Canada have access to high-speed internet, the state of connectivity is even more dire for Indigenous communities—just over half (50.3%) of First Nations households can access high-speed internet.[9]

Educators also have differing familiarity with and access to technology, creating obstacles to consistently integrating technology into their curricula. Some faculties described themselves as very "tech-savvy or as "technology champions" within their departments, helping familiarize all staff with different edtech options and how to implement them, whereas others reported lacking in digital technology knowledge. Still, others may be outright resistant to technology adoption, feeling that it negatively impacts learning outcomes or that they lack the skills needed to effectively deliver it. In a 2020 report by ICTC on technology's role in the classroom, many interviewed educators from across Canada described needing support to successfully integrate technology in the classroom, train educators on different technology use cases, and manage or minimize technology-related distractions for students.[10]

Many participants cited a lack of resources within their institutions, as well as a lack of professional development resources and time, feeling a general inability to keep up with the pace of technological change. These participants acknowledged opportunities associated with technologies in the classroom but cautioned that it was also possible for technology to create an additional burden for educators and faculty members. For example, some believed that students are increasingly using tools like GenAI to plagiarize their work; however, despite this happening, higher education institutions have not yet responded by providing educators with more resources or guidelines to deal with plagiarism cases. Beyond this, participants shared concerns about the privacy impacts of educational technologies on students. Some mentioned the growing risk of cyber-attacks and other cybersecurity events, and others discussed the potential for technologies like GenAI to put the entire role of higher education and educators in question.

Overall, participants discussed what they believed to be a mismatch between the pace of technological change and the pace of higher education curriculum change. They shared that it still takes extensive time and numerous bureaucratic processes to review and implement changes to the academic curriculum, even when it is in the best interest of these changes to be made quickly. Nevertheless, despite the nearly unanimous concern about the slow pace of change at post-secondary institutions, most lamented that the role of higher education is not to teach students niche digital technology skills; rather, it is to teach them the fundamentals of their field and ingrain the notion of continuous learning.

The Role of Higher Education Goes Beyond Workforce Development

Higher Education, Education, and Workforce Development

One topic that roundtable participants discussed in detail was the role that higher education plays in society and whether this role is exclusive to workforce development.

Most participants, including representatives from career colleges and skilled trades programs, felt that workforce development *is* central to higher education. However, many also went on to suggest that education goes beyond workforce development and job readiness, contributing to a much broader range of goals. For example, some saw their primary responsibility as developing students who are educated and aware, who understand how to learn, who can think critically, and who are good citizens and productive members of society. Even those who acknowledged the importance of job readiness to higher education expanded this to "career readiness," commenting that "students who graduate today will have two or three different careers in their lifetime; preparing students for on job is very skills oriented; but preparing them for two or three careers means making them adaptable, lifelong learners, upskillers, and entrepreneurs." In addition to developing students, higher education providers create, distill, and disseminate knowledge, provide thought leadership, and drive research and development.

When asked what "job readiness" means in today's economy and labour market, participants indicated that employers want students who:

- Have a learning attitude, are able to learn, and have an interest in acquiring new skills
- Have grit and work ethic

- Are able to articulate ideas clearly, both in writing and verbally
- Can clearly demonstrate their knowledge, skills, and experience to employers through resumes, hiring interviews, hiring assignments, and other hiring-related tasks
- Have good interpersonal skills, such as being able to make eye contact, have difficult conversations, give and receive tough feedback, and solve problems collectively with other people
- Are able to navigate in-person and remote workplaces professionally, such as being familiar with email etiquette, video-call etiquette, office etiquette, etc.
- Are familiar with industry-relevant software and hardware tools
- Know how to use emerging technologies, such as AI, big data, and cloud technologies, effectively
- Are able to apply their technical skills within specific industries and to real-world business problems

Participants indicated that while it is important for higher education institutions to prepare students for the workforce, some of the above skills are not necessarily teachable through academic programs, or at least not exclusively so.

For example, participants indicated that it can be difficult to develop students' interpersonal skills or workplace etiquette in academic settings, particularly if their coursework takes place in a remote or distance learning environment.

Similarly, participants felt that it is not feasible for higher educational institutions to teach students how to apply their technical skills in specific industries or domains—such as teaching computer science students how to build software programs for the healthcare sector, engineering students how to build transportation technologies, or business students how to sell agricultural products—unless the program itself is geared toward a specific industry. As noted by one participant (the dean of an engineering program), the job of an engineering faculty is not to develop engineers for the automotive industry, aerospace and defence, or the energy sector; it is to teach engineers the fundamental knowledge and skills that they would need to work in any domain.

Like the mismatch between the pace of change in technology versus higher education, participants also described an overall mismatch between the pace of economic and technological change and higher education. Notably, participants discussed challenges that institutions face in adjusting their programs and curricula to account for all emerging trends, technology or otherwise.
Participants from Canada's higher education ecosystem acknowledged that this

can sometimes be a weakness, but interestingly, they also saw it as a core strength. While the Canadian labour market can be subject to technology hype cycles and, in some cases, short-lived fads, many saw higher education as more anchored and consistent. That is, participants felt that higher education offers a continuous focus on what can be considered timeless knowledge and skills, ensuring both academic integrity and the continuity of specific fields of practice over time. As one participant noted, "The half-life of a skill was very different 20 years ago than it is today," with skills falling out of relevancy at a much quicker pace today.

While post-secondaries have to adapt to this reality to stay relevant, they must do so in a way that does not compromise their overall purpose of providing students with foundational knowledge, competencies, and maturity needed in any modern workplace. As such, participants felt that the role of higher education is not to teach students every new skill that they might need to use in the workplace but to prepare them to solve problems over the course of their entire careers, continuously learn, analyze, communicate, and think critically.

## Student Motivations for Attending Higher Education

Despite higher education having a much broader focus than just workforce development or job readiness, participants did acknowledge that for students, "getting a good job after graduation is one of the main reasons for pursuing higher education." One participant from an organization that tracks why students pursue higher education indicated that over the past 20 years, students have placed a greater and greater emphasis on things like career readiness, employability, and being able to get a good job. Notably, in 2023, Academica Group partnered with colleges, polytechnics, and universities across Canada to survey more than 78,600 applicants about why they want to pursue higher education.[11]

Among respondents, the most common reason was "to prepare to enter my chosen career," selected by 60%.[12] This was followed by "for my personal and intellectual growth, at 59%; "to increase my knowledge and understanding of an academic field," at 57%; "to explore options for my future," at 55%; and "to increase my earning potential," at 47%.[13] Educators, professors, deans, and program directors agreed that being able to get a job after graduation is one of the key reasons their students enroll in their programs. Participants similarly felt that when parents and caregivers contribute to or pay for a student's education, it is usually so they can get access to gainful employment after graduating.

Indeed, program leads increasingly receive inquiries like, "What job will my child be able to get after they take this degree? What career does this program set me up for? or "How much money am I likely to make in my first job?" As one participant noted:

> "This is a sign of the times—families and young people are facing such economic pressure that they're in survival mode. They're not thinking about critical thinking skills or learning how to contribute effectively to Canada's democracy. They're wondering, 'What's in it for me economically.' Can you blame them?" – Professor, University, Toronto

While the purpose of higher education is not just job readiness, it is crucial for Canadian students to graduate workforce-ready and employable. Yet, academic programs cannot be charged with ensuring students graduate workforce-ready alone. It is imperative for Canada to maintain a robust workforce development ecosystem populated with academic institutions, not-for-profits, government, and industry partners who can provide work-integrated learning experiences to ensure students are eligible for gainful employment when they graduate.
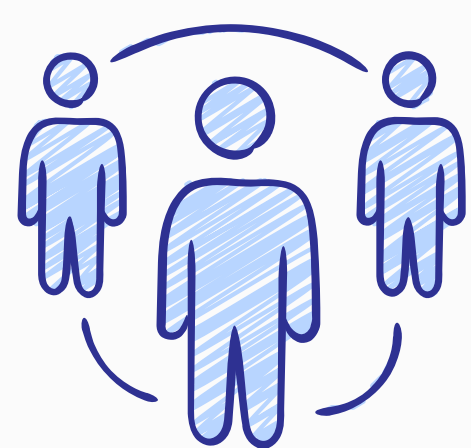
Workforce Development Partners Are Crucial to the Success of Canada's Higher Education Sector

Ensuring students are workforce-ready is a comprehensive task. Higher education stakeholders participating in this research frequently highlighted a broad range of knowledge and skills that students need to be "workforce-ready" in the eyes of potential employers. Higher education institutions have incorporated a variety of in-demand skills into their academic programs to date, including timeless skills, such as the ability to communicate, learn, think critically, and solve problems. To the extent possible, they have also incorporated skills related to emerging technologies, such as the ability to use GenAI, remote collaboration tools, and cloud technologies. Yet, employers and higher education professionals alike report difficulty teaching some work-ready skills in academic settings.

Interpersonal skills, workplace etiquette, and the ability to apply technical skills in specific industries or domains, for example, are challenging to "teach" and often need to be learned on the job. Similarly, the ability to use industry-specific technologies, such as software programs, also requires learning by doing. This reality points to the need for workforce development partners, including industry

partners and not-for-profits, to work with higher education institutions to deploy practical application opportunities for students to gain the work-ready skills that are difficult to teach in academic settings.

Research by ICTC finds that experiential learning, which is the process of learning by doing in a real-world work setting, is an effective way to teach many of the work-ready skills that are difficult to teach in academic settings.[14] Examples of experiential learning include community service learning, co-ops, apprenticeships, placements, practicums, internships, labs, simulations, and work-integrated learning (WIL) programs. ICTC's research also finds that experiential learning programs like ICTC's WIL Digital program (supported by the Government of Canada's Student Work Placement Program) benefit higher education providers, employers, and students alike. Recent ICTC analysis on the impact of this student work placement program across sectors finds that, in addition to robust skill development and invaluable training, these experiences produce a direct and significant economic benefit to both participating students and employers.[15] Other benefits include the following:

Higher education providers get support from industry partners to ensure students are employable upon graduation, which contributes to positive statistics for higher education institutions and programs. During the research for this paper, higher education professionals noted that statistics like employment rate post-graduation are often used by governments, students, and parents when assessing the strength of higher education programs and, in turn, when deciding whether to apply, to enrol, or to increase funding. For example, Academica Group finds that "a strong reputation for graduates having good careers" is the second most common attribute for applicants to consider when deciding which Canadian higher education institution to apply to.[16] In fact, applicants rated this consideration more highly than geographic proximity or financial considerations.

From the perspective of industry, WIL programs help employers (1) gain access to a new and more diverse talent pool, (2) strengthen their relationship with higher education institutions and, in turn, their talent pipeline, (3) grow their hiring and mentorship capacity, (4) enhance their productivity and service delivery, and (5) when wage subsidies are provided, reduce their financial burden while expanding their organizational capacity.[17]

Finally, from the perspective of students, participating in a WIL program can help students (1) gain access to net-new employment, (2) improve their skills and abilities, (3) improve their confidence in their skills and abilities, (4) ensure they are employable upon graduation, and (5) increase their future salary potential.[18]

In addition to the above benefits, WIL programs help ensure better skills alignment across the economy, increase the rate of employment for student populations, address labour shortages for in-demand roles and skills, and, when designed with a diversity, equity, and inclusion in mind, increase the rate of employment for underrepresented groups.

Experiential Learning Incentives and Supports

The benefits that experiential programs like WIL provide to higher education institutions, employers, students, and the economy, more generally, are clear. Now, the focus must be on scaling and advancing such programs to ensure all students can benefit.

One challenge that higher education institutions face when it comes to bolstering the availability of work-integrated learning opportunities is internal capacity. Part of this challenge may be financially driven. Other barriers include administrative and operational burdens, as well as challenges related to finding meaningful placements for students and tracking progress to ensure that they offer maximum value for both employers and students.

Participants also highlighted difficulties in building collaborative relationships with industry, which further put pressure on the ability to find meaningful placements for students. In some regions, participants cited difficulty recruiting employers who have the capacity to get involved in workforce development programs, whereas, in other jurisdictions, the challenge related more to the capacity of educators and other higher education professionals to dedicate the time needed to effectively engage with industry and form lasting relationships. As one participant from Calgary asked, "Can industry support every student having a WIL experience?"

The Role of Workforce Development Partners

These challenges point to a need for workforce development partners to help higher education institutions and industry overcome barriers to providing students with experiential learning opportunities. Increased partnership is imperative for Canada's workforce development ecosystem to be successful in preparing students for the workforce of the future and to achieve a vision of excellence for higher education in Canada.

Workforce development partners can help reduce the financial and administrative burden associated with finding, coordinating, managing, and ensuring the quality of experiential learning opportunities, such as co-ops, internships, capstone projects, and other WIL opportunities. Workforce development partners exist at the intersection of industry and higher education institutions and can help ensure beneficial and collaborative relationships between these two, sometimes siloed groups. Often, finding and coordinating experiential learning opportunities is one of the core activities that workforce development partners engage in, enabling them to home in on these activities, streamline operations, and develop financial and administrative efficiencies. Additionally, given their neutral role situated outside of both higher education and industry, workforce development partners are a good candidate for quality assurance: by working with students, higher education institutions, and employers, workforce development partners can help to ensure the quality of experiential learning opportunities and, in turn, ensure that students gain access to quality, meaningful work experiences that are both relevant to their field of practice and aligned with industry's in-demand knowledge and skills.

Workforce development partners can also incentivize industry to take part in experiential learning programs, hire co-op students or interns, and provide WIL placements for students. One aspect of this is increasing industry and employer awareness of the importance and benefit of experiential learning programs. Another is providing employers with administrative support (like higher education institutions, employers are often constrained in their ability to manage the administrative burdens associated with workforce development). Finally, workforce development partners can use financial incentives to encourage industry to get involved in workforce development, such as by delivering wage subsidies for student wages in the context of co-ops, internships, or WIL placements.

Conclusion

Labour shortages pose a significant threat to the health of the Canadian economy, particularly in Canada's digital economy industries. Canada faces a shortage of workers with in-demand digital technology skills who can apply technical skills like software development and data analysis to specific industries and domains and have sufficient interpersonal skills and workplace etiquette to work together effectively in teams. Continued labour shortages could impact the ability of Canadian companies to design, develop, adopt, and export high-technology solutions and IP, in turn adversely impacting the future health of the Canadian economy.

This reality makes it imperative for Canada's workforce development ecosystem to work together to effectively teach in-demand knowledge and skills and provide learners with opportunities to apply that knowledge in real-life settings. Given that higher education is not necessarily ideal for teaching students all of the knowledge and skills they need to be workforce-ready—such as interpersonal skills, workplace etiquette, industry domain knowledge, and digital skills—it is imperative that Canada maintains a rich ecosystem of higher education institutions, industry partners, and not-for-profits that can collaborate to develop Canada's future workforce.

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