




**Future
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Centre**

Centre des
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futures**

 State of Skills Report

Digital Tools in the Skills Ecosystem



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KEY INSIGHTS

- 1** There is considerable promise in the role digital tools and virtual career services can play in improving access to training and career development, particularly for those with geographic barriers or constraints such as family care or other work responsibilities.
- 2** There are risks that digital tools and online delivery models will exacerbate inequalities if they are pursued at the expense of interventions that target the most vulnerable and those in most need of support. These include people without access to the internet or related devices, those lacking digital literacy or those facing difficult circumstances at home.
- 3** Career and training-related decisions are complex and involve a variety of considerations and trade-offs. Issues are sometimes not easily addressed solely by a digital tool or virtual career services, especially for vulnerable and underserved populations. In-person support provides significant value in the delivery of career and training guidance.

The Issue

Canada has lagged behind other OECD countries in providing digital skills development and career services delivery online. However, the pandemic forced many career development providers to stop in-person delivery, creating incentive for the sector to innovate and move, at least temporarily, to delivering services online.

But even before the pandemic, the transition to digital education and training delivery was well underway in Canada, as indicated in a 2016 report by the Information and Communications Technology Council of Canada. While in-classroom formal training was the most used (95%) training type for Canadian organizations, employers also identified self-paced online learning (73%), face-to-face collaborative learning (57%), instructor-led online (45%) and instructor-led blended (45%) digital training platforms as alternatives. The years before the pandemic also saw a surge in massive open online courses or MOOCs, providing just-in-time training that is scalable and less costly than other training mediums.

The transition to digital has been marked by challenges. In 2021, as the world was recovering from the pandemic, the European Commission studied the digital divide, or the gap in opportunity to access and use digital tools between people, households, businesses and geographic areas at different socio-economic levels. The pandemic highlighted the scope and impacts of the divide, especially for those without easy access to the internet and technology.

In Canada, the ability of rural workforces to participate in the digital and high-tech economy is hampered by structural limitations and policy inertia on access to reliable, high-speed internet. Surveys of rural communities in the pandemic's immediate aftermath show the digital divide was deeply felt by rural residents in their day-to-day lives.

There is potential for digital tools and platforms to empower people and career development professionals with access to a range of skills information and career services, including new, underserved populations and those in remote areas. Digital tools and virtual delivery could radically transform career services now and in the future. At the same time, there are concerns they will widen inequities within the skills development ecosystem and limit access to those most in need.

What We Investigated

So that we could support digital transformation and understand its effects, FSC funded a number of projects to test innovative techniques and tools to disseminate labour market information and skills data, match employers and job seekers, acquire and recognize skills, and provide and receive skills-related career help.

With our partners, we have been testing digital development in skills training and career development, recognizing the potential to improve systems and also the uneven effects that can result for people and career development professionals.

This report reviews findings and early lessons from a number of projects noted in Appendix A and will be updated with additional insights as more projects close.

In each of the projects, FSC partners tested the effectiveness of digital skills training targeting a specific population of learners from various fields, including mid-career workers, students, young workers and adults with low digital literacy. Projects sought to upskill workers in particular industries or upgrade their credentials. Together, the diverse range of projects help illustrate the prevalence of digital tools now across the skills ecosystem, and showcase their usefulness and limitations. These projects generate evidence and insights that further our understanding and shape the digital skills delivery ecosystem of the future.

✔ What We're Learning

Digital tools improving access and reach of career-related services

The projects demonstrate that technology can improve access and reach of career-related services. Virtual delivery can be an efficient and accessible way for more Canadians to gain access to learning opportunities, skills assessment and career advice. Online information and services significantly increase access for many people unable to attend in-person sessions, especially those with mobility or geographic barriers and also those with constraints such as family and care responsibilities. People living with a disability, single parents and those living in rural and remote areas were able to access services and training that might not have been accessible to them otherwise. The piloted online delivery models also provided career development professionals and employment service specialists with opportunities to connect clients with resources or professionals from other jurisdictions in Canada and globally.

Benefits are greatest when the goal is straight-forward

The use of digital tools within the skills ecosystem is most effective when narrowly focused to gain basic literacy skills or to improve the mindsets of workers about the benefits and feasibility of reskilling for new jobs. The projects highlight that tools, information and technologies aligned with each phase of a person's career journey [have the most impact](#).

Some career and training decisions require in-person support

Digital tools alone have serious limitations for people, especially those confronting multiple barriers. Many people still require personal support and guidance to make informed career and training choices. Programs that are more effective help individuals take advantage of existing virtual tools and provide them with the necessary in-person support to navigate their career choices.

New forms of inequity brought on by online delivery

Overall, digital tools and online delivery improve access and reach, but not everyone benefits equally. Some vulnerable groups lack digital literacy skills and face challenges in accessing the internet and technology. In some cases, the clients who could benefit most from virtual service delivery, for example people living in remote areas, are the ones facing barriers to technology. Virtual delivery means the safety, security and privacy of clients cannot be guaranteed, which is a concern for women fleeing violence, for example.

Digital tools require reskilling for service providers

Online delivery of career services can make it more difficult to engage with reluctant clients and to build constructive, positive relationships with them. It can be more challenging for career development professionals to understand personal barriers like anxiety or mental health challenges. As a result, employment service providers themselves need support and reskilling, for example, in virtual communications, online relationship building and managing mental health with clients connected remotely. Career development professionals report challenges in adapting to new technologies because of time and financial barriers. Yet, technology and new tools, including artificial intelligence, will continue to reshape career development. Addressing upskilling barriers for career development professionals will be key to ensuring the effectiveness of digital tools and online service delivery.

Why It Matters

Technological advances are permeating the skills development ecosystem, generating innovative techniques and approaches in how we understand in-demand skills and deliver skills training. Use of digital tools and applications have become commonplace in nearly every facet of life, especially among young people.

There is an opportunity to enhance employment outcomes by leveraging digital skills and new digital technologies. In an increasingly complex world of work, digital skills and technologies will play an escalating role in achieving inclusive growth, quality employment and shared prosperity.

Disparities in digital access cutting across geography, education, age, ethnicity and professional background, have spurred discussion among policymakers about the so-called “digital divide” and its role in hindering the advancement of segments of the workforce. Policymakers in skills training should consider the implications of this divide and incorporate relevant insights in future policy interventions.

What's Next

In the coming months, additional FSC-funded projects will offer more insights on the role of digital tools within the skills development ecosystem. Areas being tested will complement our understanding of the state of skills and digital tools, including:

- How does the system build and support organizational capacity to leverage and maintain digital tools that work?
- How can industry-specific career navigation tools support and facilitate access to re-skilling, upskilling and employment programs?
- How can digital platforms support the process of scaling promising approaches?
- How can digital technologies be integrated and leveraged to create connected infrastructure, furthering efficient data collection and collaborative intervention design?
- What does effective data architecture look like for the career development space, where tools are coordinated, aligned and complementary?

Each of these questions contributes to knowledge of the experience in designing and implementing digital tools, and will offer an opportunity to update our collective knowledge on the role of digital and online tools in supporting workers, industry and career development professionals.

Projects in this Report

Association of Service Providers for Employability and Career Training (ASPECT): *Virtual services for career practitioners*

ABC Life Literacy Canada: *ABC Skills Hub*

Northern Lights College: *Climb*

United Food and Commercial Workers Union: *Skilled Jobs & Career Pathways for Mid-Career Workers through Work-Based Learning*

Ontario Tourism Education Corporation: *Project Integrate*

Canadian Apprenticeship Forum: *Beyond Hours*

Have questions about our work? Do you need access to a report in English or French? Please contact communications@fsc-ccf.ca.

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