



**CANADA
LEARNING CODE
EN PROGRAMMATION**

Written Submission for the Pre-Budget
Consultations in Advance of the Upcoming
2021 Federal Budget

By: Canada Learning Code

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RECOMMENDATIONS

Recommendation 1: The Government of Canada invest \$150 million over 5 years in the expansion of the Digital Literacy Exchange program to fund direct program delivery of high-quality technology skill education designed for women and other underrepresented groups in the information and communication technologies sector

Recommendation 2: The Government of Canada continue its financial investment of \$30 million per year in the CanCode program with a focus on supporting classrooms and underserved communities who are being disproportionately affected by the pandemic

CANADA'S ECONOMIC RECOVERY AND DIGITAL FUTURE

More than ever before our lives are being shaped by pervasive digital technologies that are changing how people live, work, interact, and learn. There's widespread acknowledgement that digital technologies are increasingly embedded in our lives and will play an increasingly prominent role into the future, yet we've only started to scratch the surface of the advancements and opportunities in years to come. As digital technologies play ever-more important roles in our lives, it is critical that all adults and youth, especially those who have been traditionally underrepresented in tech, have the opportunity to learn foundational skills and competencies to access the careers of the future. This includes women, low-income Canadians, people with disabilities, LGBTQ2 communities, Indigenous peoples, Black Canadians, other racialized people in our country and people living in rural and remote areas. The COVID-19 pandemic has highlighted the need for all Canadians to be equipped with technology skills and confidence. It has also brought into stark focus the need for governments to carefully consider and implement policies that promote inclusive growth and equitable opportunity to participate in the increasingly digital economy of the future. It is essential that we empower and equip all Canadians to harness the power of digital tools, enabled by connectivity, to ensure prosperity and Canadian competitiveness into the future.

But, Canada is faced with several issues when it comes to building that future:

A shortage of qualified workers in a fast growing sector: According to the Information & Communications Technology Council's recent Canada's Growth Currency: Digital Talent Outlook 2023 report, technology jobs are the fastest growing occupations with an estimated shortage of more than 305,000 people to fill roles in Canada by 2023. The Information and Communication Technologies (ICT) sector overall has one of the largest employment growth potential for the Canadian economy which means investments in increasing skilled labour for this sector will yield positive gains for the Canadian economy.

A rapidly changing nature of work: Entire sectors are transitioning into knowledge industries with a declining need for some jobs and skills and a skyrocketing demand for others. According to the Brookfield Institute, 42% of the Canadian workforce is at risk of having their job significantly impacted by automation in the next 10-20 years, which means work as we know it is drastically changing for people in Canada. For those who remain in the same jobs and careers, there will be a significant need to learn technology skills in order to keep up with the changes in how work is completed. Investment in supporting people in Canada to up-skill and/or re-skill are critical to help them navigate the reality that the jobs they've been trained for and know are changing.

An underrepresentation of women and other groups in the ICT industry: As it stands, only 26% of all ICT professionals are women in comparison to 47.7% of women in the Canadian labour force. Although this number increased slightly in the last three years, more work is

necessary to reduce the gender gap. Visible minorities represent 31.4% of the ICT workforce; however, those who identify as Black only represent 2.6% of this group. In addition, less than 3% of all ICT roles are held by Indigenous peoples. A targeted approach that removes barriers commonly experienced by these demographic groups is required in order to achieve the objective of inclusive growth and also meet the growing demand for skilled and diverse ICT professionals in Canada.

An uneven landscape of computer science education in Canada: Over the past decade, education leaders across Canada have been making strides towards including Computer Science education in curricula. Yet, the landscape remains uneven. The result is inequitable access to high-quality and comprehensive foundational Computer Science education for all students across Canada which is absolutely critical to our future competitiveness as a country.

An unprecedented negative impact of the global pandemic on the Canadian labour market particularly women, youth, and visible minorities: Some groups in Canada have been disproportionately impacted by the global pandemic. StatsCanada identifies lower-wage workers, youth, and women as being the hardest hit demographics of the labour force affected by the Covid-19 economic shutdown. While unemployment is at a record high among these groups, during the pandemic, employment opportunities continued to increase in the digital and technology-based sector further highlighting a gap and a huge opportunity for the Government of Canada to support these groups.

ADDRESSING THE GAP IN THE ICT SECTOR & SUPPORTING OUR ECONOMIC RECOVERY

One of the ways the Government of Canada can make meaningful progress towards an inclusive economic recovery is through targeted and strategic investments in skills development. By sustaining and expanding investments in Canada's technology education sector - for both adults and youth - the government can help millions of people in Canada develop the skills to allow them to thrive in the jobs of today and more importantly, build a better future tomorrow.

Recommendation: The Government of Canada invest \$150 million over 5 years in the expansion of the Digital Literacy Exchange program to fund direct program delivery of high-quality technology skill education designed for women and other underrepresented groups in the information and communication technologies sector

The Government has a critical role to play in ensuring there are no barriers to access - financial or otherwise - to the participation of women and underrepresented groups in critical skills development opportunities. The Government of Canada can do so by supporting organizations that specialize in direct delivery of skills training to

underrepresented groups that prepare them for new jobs and/or help them adapt their skills for new sectors. We recommend an increased investment in the Digital Literacy Exchange program, as well as an expanded scope to go beyond a focus on simply using computers to invest in skills-based training opportunities. The expansion of both the mandate and funding for the Digital Literacy Exchange program can help to make investments in direct delivery of accessible, inclusive and high-quality technology skills education. It will also help provide a bridge to other federal grants and benefits that support upgrading of skills through more formal educational streams, such as the Canada Training Benefit and Skills Boost.

CANADA LEARNING CODE OFFERS ACCESSIBLE INCLUSIVE OPPORTUNITIES FOR PEOPLE TO BE EXPOSED TO TECH THEREBY OPENING UP THE WORLD OF OPPORTUNITIES IN THE DIGITAL ECONOMY

Canada Learning Code helps provide underserved and underrepresented groups with opportunities to up-skill learners and put them on a pathway to gain employment in the digital and tech space. We offer workshops, courses and meetup experiences for adults of all ages and genders but designed to be a space for women.

After completing at least one experience, adult participants indicated that because of Canada Learning Code:

- 46% took on a new coding/tech task at work
- 78% felt more confident and interest in using coding/tech in their jobs
- 77% went on to learn more about tech and code through self-directed learning
- 1 in 5 took on a new job opportunity using coding/tech

Canada Learning Code plays an important role in direct delivery to beginners to set them on a pathway to tech by expanding their tech skill set, thereby opening up the world of opportunities in the digital economy.

Recommendation: We recommend the Government of Canada continue its financial investment of \$30 million per year in the CanCode program with a focus on supporting classrooms and underserved communities who are being disproportionately affected by the pandemic

The first two years of the CanCode program proved to be a huge success, reaching over 1.3 million students and over 61,000 teachers. This initial success contributed to the renewal of funding into 2019-2020 with funded organizations having an even greater capacity for impact and reach. At Canada Learning Code, we have experienced firsthand the immense

positive impact of the program and have been able to reach hundreds of thousands of youth across the country in every province and territory. We have seen that education leaders have been making strides towards including Computer Science education in curricula. Yet, the landscape remains uneven. Some provinces and territories offer students the opportunity to learn Computer Science in elementary and middle school, whereas others offer these classes as electives in high school. In many cases, there is little or no opportunity for students to learn the subject. The global pandemic further highlighted the inequities across the country from unequal access to technology and internet connectivity to lack of professional training and resources for educators required to make the shift to digital tools to facilitate learning. As we highlight below, CanCode-funded organizations occupied a critical role during the global pandemic that highlights an opportunity as school has been reshaped for months and years to come. A continued investment in the CanCode program with a focus on professional development for K-12 educators as well as direct delivery to underserved and underrepresented youth in Canada would help to level the playing field and ensure more equitable access to 21st century skills that are critical to our future prosperity and Canadian competitiveness.

BRIDGING THE GAP IN K-12 EDUCATION DURING THE GLOBAL PANDEMIC

During the global pandemic, Canada Learning Code's responsiveness and commitment to the advancement of education helped us meet an immense and growing need for youth displaced from classrooms, parents trying to navigate a new work-from-home reality and adults experiencing unprecedented levels of unemployment to access tech skills demonstrating the critical role that NGO's play - and will continue to play - in the economic recovery.

"Thank you so much. My daughter attended a session recently and really enjoyed it. I want you to know how much we appreciate you all for doing this for the kids, especially under the circumstances. This means a lot to them and us!"

Our work also helps to bring classrooms together during the pandemic and plays a critical supporting role for educators making the unprecedented shift online. Our hybrid learning experiences combine in-person and virtual learning. For example, our instructors in British Columbia worked with an educator and their learners to provide a coding experience to their classroom. A portion of the class joined in-person via Zoom utilizing the laptops provided by the school while the rest of the learners used their own devices from home allowing collaboration across the entire class through breakout rooms in Zoom.

ABOUT CANADA LEARNING CODE

Canada Learning Code is Canada's leading national charity championing digital literacy education. Placing a special emphasis on women, girls, people with disabilities, Indigenous youth and newcomers, Canada Learning Code is proud to work from coast-to-coast-to-coast to make sure that everyone in Canada has access to the knowledge they need to prosper in our digital world.

Originally founded as Ladies Learning Code in 2011, the organization has evolved to run programming for adults, youth and educators through our Ladies, Girls, Kids, Teens and Teachers Learning Code programs. Today, Canada Learning Code operates in over 250 communities across the country, driving impact through program design and delivery, strategic industry and public partnerships, research and advocacy. To date, the organization has had over 600,000 learners attend an in-person experience. In light of Covid-19, Canada Learning Code now runs virtual experiences that continue to reach people in communities across the country.