

Think Outside The Bars

Manpreet Deol & Sagar Grewal
Our Digital Future Thinkathon

June 2020

Our Team



Manpreet Deol

I have recently completed an undergraduate degree in Mechanical and Biomedical Engineering. As a native Vancouverite and techie-at-heart, I have developed a passion for technology development, Industry 4.0, and ethical research and innovation. Not only do I enjoy advocating for the importance of digital literacy so that all individuals have access to skills that will allow them to thrive in the digital economy but I also believe that fair representation of minorities when designing policy at the intersection of technology and education is essential. This upcoming Fall, I will be pursuing graduate studies at the University of Oxford in the field of Human Centered Computing and the Social Science of the Internet.



Sagar Grewal

I recently completed an undergraduate degree in Biomechanics (Honours) at the University of Calgary. I aspire to pursue a career rooted in serving others, through integrating policy and health outcomes. I have been fortunate to have contributed to policy development at the local, provincial, national and international levels through my previous experience. I currently serve as an Advisor to the Prime Minister, as a member of the Prime Minister's Youth Council. I've previously advocated on behalf of my peers as President of the University of Calgary Students' Union. I have had the privilege of representing Canada on the international stage, as a member of the Canadian Delegation to the United Nations Office on Drugs and Crime.

Why the Thinkathon?

Inclusion | Collaboration | Inspiration



Sagar previously dropped-in on a 24 Hour Thinkathon on Social Relations which took place in Edmonton, in collaboration with Milan. Sagar learned a lot from the participants he met, and left wishing he had signed up to participate. When it came to the online Thinkathon, Sagar promoted the opportunity to his network, when Manpreet suggested teaming up.

Together, we balance one another with our skills and experiences, with technical and digital skills, and policy development, both of which are rooted in our collective desire to support marginalized communities and vulnerable populations.

We have spent a significant amount of time discussing vulnerable populations who are systemically disadvantaged in our increasingly digital world. We wanted to ensure that our recommendation would be one which seeks to support those who are in most need. Upon completing some research, we found an opportunity for nations to learn from one another, and build policy which allows for greater digital inclusivity.

“Every person on Canadian soil, whether they are in our prison system or in our immigration system, deserves to be treated with humanity and dignity, and to have full access to Canada’s human rights protections.”

Canadian Human Rights Commission



Canadian Population

5% of Canadians
identify as
Indigenous^[1]

3% of Canadians
identify as
Black^[2]

Incarcerated Population

30% of Incarcerated
Persons are
Indigenous^[1]

10% of Incarcerated
Persons are
Black^[2]

**Racialized Minorities are overrepresented
in the Canadian Justice System**

[1] <https://www150.statcan.gc.ca/n1/pub/85-002-x/2019001/article/00010-eng.htm>

[2] <https://torontoist.com/2016/04/african-canadian-prison-population/>

Over 70% of individuals who enter the Federal Prison System, lack a high school education.^[3]



Currently, Federal Prisons only provide basic educational support, up to High School proficiency.

Correctional Services Canada no longer supports the pursuit of post-secondary qualifications.

Correctional Services Canada allocates 1% of their budget to educational supports for prisoners.^[3]

9.8% of Indigenous persons have a University Degree, compared to 26.5% of Non-Indigenous persons.^[4]

[3] <https://johnhoward.ca/blog/problems-education-canadian-prisons/>

[4] https://www12.statcan.gc.ca/nhs-enm/2011/as-sa/99-012-x/99-012-x2011003_3-eng.cfm

Material taught in correctional education program is outdated with limited relevance to skills needed in the digital economy.

Currently, internet access is prohibited in Canadian Prisons despite the ubiquity of the internet in workplaces and communities.^[3]

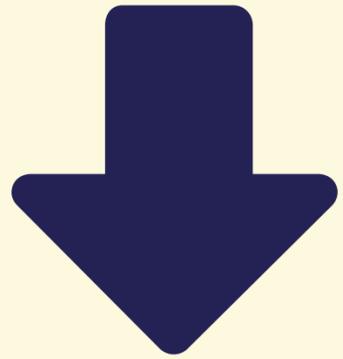
Therefore, incarcerated persons are unable to develop digital skills.

The ability to reintegrate into a tech-driven society is inhibited.

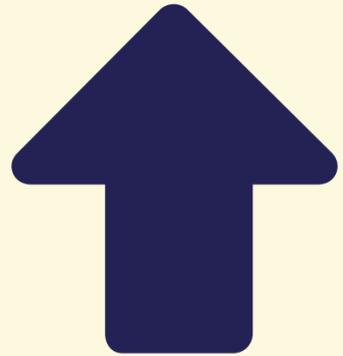


[3] <https://johnhoward.ca/blog/problems-education-canadian-prisons/>

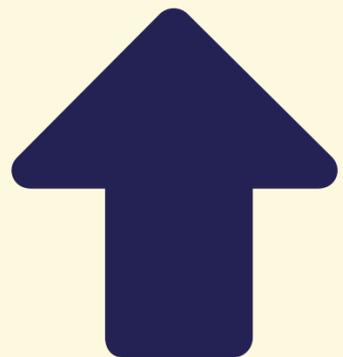
Why is correctional education important?



Correctional education reduces the likelihood of reoffending by 13%.^[5]



Correctional education improves the likelihood of gaining employment by 13%.^[5]



Computer-assisted instruction resulted in increased learning in reading and math.^[5]

The Problem

Education is not a priority.



Correctional Services Canada spends **\$2,900** per prisoner per year on educational support.^[3]



Correctional Services Canada spends **\$120,000** per prisoner per year on incarceration.^[3]

Correctional Services Canada offers vocational skills training. However, **less than 50%** of federal prisoners receive any vocational certification.^[6] Of certified individuals, only **30%** are employed within 15 months of release.^[6]

[3] <https://johnhoward.ca/blog/problems-education-canadian-prisons/>

[6] http://publications.gc.ca/collections/collection_2015/scc-csc/PS83-3-306-eng.pdf

The Current State of Correctional Education Policies



The purpose of the Canadian Justice System is to reintegrate and subsequently prevent repeat offences.

According to Correctional Services Canada's Commissioner's Directive for Education Programs and Services for Offenders (CD720):^[7]

Upon incarceration, policies dictate that education-related assessments should be completed for each individual's educational programming. This includes providing careful consideration to the unique needs of individuals, such as Indigenous persons. Educational programs should lead to formal certifications or accreditations from recognized authorities.

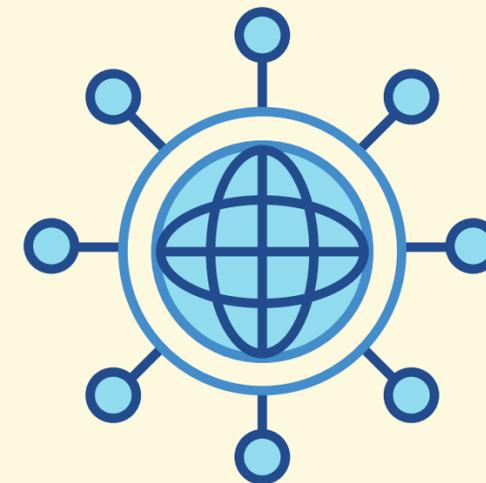
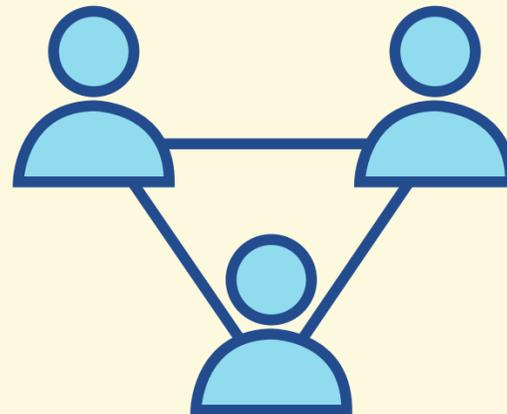
The priority of Correctional Services Canada is the attainment of Adult Basic Educational programming (Grade 1-12), which is available to individuals whose educational grade level is below Grade 12, or the provincial equivalent. Additionally, education programs, including but not limited to English or French as an Additional Language Program, Adapted Education Program and General Education Development, may be offered to individuals, on an as needed basis.

[7] <https://www.csc-scc.gc.ca/acts-and-regulations/720-cd-eng.shtml#s2b>

Our Recommendation

The holistic reintegration of incarcerated individuals cannot take place if we do not them with opportunities to develop digital skills which are becoming increasingly important in our digitized society.

We recommend the Government of Canada support the establishment of a pilot-study which will explore the implementation of digital skills learning opportunities for incarcerated persons in federal correctional facilities.



Stakeholders and Partners



Federal & Provincial Governments

Partnering with governments will allow for the implementation of policy recommendations at a provincial and national scale. This includes advocating to relevant Provincial and Federal Ministers, and Commissioners.



CanCode

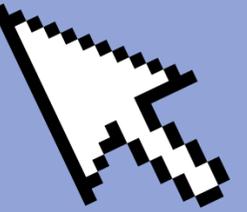
To date, the Government of Canada has committed \$110 Million dollars to supporting CanCode. This program financially supports initiatives and organizations which seek to develop digital skills in underrepresented populations.



Community Organizations

Partnering with community organizations such as the John Howard Society, The Bridge, Elizabeth Fry Society, and Pasan will provide us with knowledge on advocacy, reform and progress which is currently ongoing.

Intended Learning Outcomes



It is crucial that incarcerated persons be provided with the opportunity to develop employable skills training, which is focused on competencies needed in today's digital economy. Incarcerated persons face significant stigma and discrimination, which contribute to high unemployment rates

Our initiative aims to:

- Improve the **quality of reintegration** experienced by previously incarcerated individuals.
- Increase the **employment rate** of previously incarcerated individuals, such as through **freelance employment** in the growing gig-economy, and the potential for **entrepreneurial pursuits**.
- As **contributors to the gig-economy**, their dependence on corporate employers will reduce.

We plan to accomplish this through:

- Providing incarcerated individuals with **access to online courses** and modules which develop **employable digital skills**, which are commonly recognized by employers.
- Providing incarcerated individuals with the **freedom** to pursue digital skills which they are interested in, which they can progress through at their **own pace**.
- Prioritizing **technical, hands-on, and experiential** applications of concepts, through educational platforms.
- Providing support via **knowledgeable instructors and volunteers** for more support and hands-on learning
- Supporting educational environments which **accommodate different learning styles and abilities**



Classroom → Workplace Transition

<Skills>

- Basics of working with computers and digital interfaces
- Digital marketing
- Graphic design
- Webpage development (HTML)
- Social Media content curation
- Information and technology (IT)
- Data analytics
- Data visualization
- Android/Mac/OS basics
- Basic front-end software development
- Coding (programming languages)

<Employment>

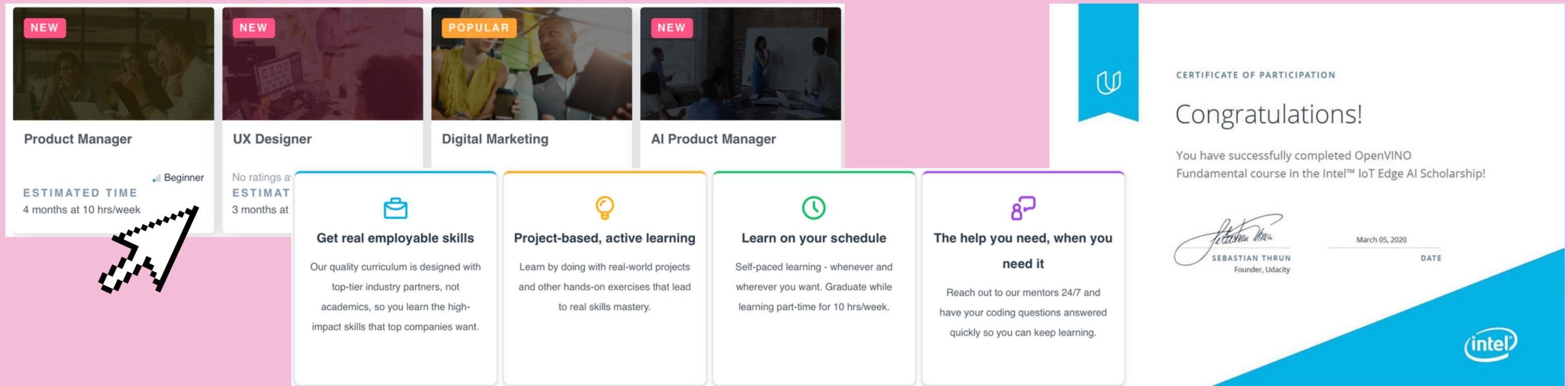
Freelance work, entrepreneurial endeavours, opportunities for self-employment:

- Website creation on a contract basis
- Graphic design for online content
- Digital marketing and branding analysis
- Social media coordinating
- Bespoke data analysis and visualization projects
- Application development (Android/Mac)
- User Interface (UX) consulting

Use Case 1: UDACITY

Udacity offers digital skills development through online courses. Participants can earn a certificate or "Nano Degree" within a few weeks, to a few months, while progressing at their own pace.

Udacity has built significant partnerships with many technology employers (Google, Amazon, IBM), which have formally recognized their educational programs and content. Their current course offerings focus on digital literacy, programming skills, data analytics, digital marketing, machine learning & AI. Providing students with a foundation in digital skills, with ample space to grow and progress to advanced skills.



The image shows a collage of Udacity course cards and a certificate. The course cards are for Product Manager, UX Designer, Digital Marketing, and AI Product Manager. Below them are four benefit cards: 'Get real employable skills', 'Project-based, active learning', 'Learn on your schedule', and 'The help you need, when you need it'. To the right is a 'Certificate of Participation' for Sebastian Thrun, dated March 05, 2020, for completing the OpenVINO course. The Intel logo is visible in the bottom right corner.

NEW Product Manager
ESTIMATED TIME: 4 months at 10 hrs/week
Beginner

NEW UX Designer
No ratings available
ESTIMATED TIME: 3 months at 10 hrs/week

POPULAR Digital Marketing

NEW AI Product Manager

Get real employable skills
Our quality curriculum is designed with top-tier industry partners, not academics, so you learn the high-impact skills that top companies want.

Project-based, active learning
Learn by doing with real-world projects and other hands-on exercises that lead to real skills mastery.

Learn on your schedule
Self-paced learning - whenever and wherever you want. Graduate while learning part-time for 10 hrs/week.

The help you need, when you need it
Reach out to our mentors 24/7 and have your coding questions answered quickly so you can keep learning.

CERTIFICATE OF PARTICIPATION
Congratulations!
You have successfully completed OpenVINO Fundamental course in the Intel™ IoT Edge AI Scholarship!

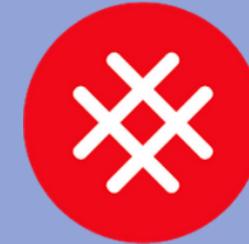
SEBASTIAN THRUN
Founder, Udacity

March 05, 2020
DATE



Use Case 2: Canada Learning Code

CLC designs, delivers, and partners on technology education.
CLC currently offers tailored programs for these specific populations:
#KidsLearningCode, **#GirlsLearningCode**, **#TeensLearningCode**,
#LadiesLearningCode and **#TeachersLearningCode**



**CANADA
LEARNING
CODE**

A partnership with Canada Learning Code could result in the creation of a brand new program:
#InmatesLearningCode

"We believe that digital skills are tools of empowerment."

"The new Canadian landscapes are digital."

"The world is changing, and we want Canada to be ready. We're here to make sure that all people in Canada - particularly women, girls, people with disabilities, Indigenous youth and newcomers - have access to the knowledge they need to prosper in our digital world."

 <p>LIVE ONLINE WORKSHOP MAY 25, 2020 10:00AM • MAY 25, 2020 11:30AM Gamemaking with Scratch Ages 9-12 + Guardian ONLINE EASTERN STANDARD TIME *kids learning code</p>	 <p>LIVE ONLINE WORKSHOP MAY 25, 2020 2:00PM • MAY 25, 2020 4:00PM Webmaking with HTML & CSS 13-17 year olds ONLINE ATLANTIC DAYLIGHT TIME *teens learning code</p>	 <p>LIVE ONLINE WORKSHOP MAY 25, 2020 2:00PM • MAY 25, 2020 4:00PM Webmaking with HTML & CSS ONLINE EASTERN STANDARD TIME *ladies learning code</p>
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A **<CanCODE>** initiative!

Use Case 3:



The Last Mile program began in the United States in 2010. The United States represents nearly 5% of the world's population, but nearly 25% of the world's incarcerated population. The United States boasts a 55% recidivism rate (re-offending), commonly related to difficulty gaining steady employment.

The Last Mile was created by Chris Redlitz and Beverly Parenti at the San Quentin State Prison, in California. It began as an entrepreneurship course, but offered programming in 2014.

Today, The Last Mile has 19 centres, in 5 states (California, Indiana, Kansas, Michigan & Oklahoma). The program has engaged over 600 inmates, 90 of whom have reintegrated with society. All of whom are either employed or in higher education with a 0% recidivism rate.

This program has gained the support of corporations and foundations such as Google, Slack, and the Chan-Zuckerberg Initiative. This program has been profiled in numerous publications and studies.



Implementation Strategy

To implement this policy recommendation, we plan to carry out the following steps:

Connect with community organizations who have experiences in furthering educational programming in correctional facilities, and digital skills development in diverse populations. Exemplary organizations include the Elizabeth Fry Society, John Howard Society and The Last Mile program.

Formally engage the Government of Canada in discussions on this matter. Particular Ministers of Interest who could contribute to the advancement of this initiative include the Minister of Innovation, Science and Industry (Honourable Navdeep Bains) and the Minister of Public Safety and Emergency Preparedness (Honourable Bill Blair). Minister Bains has overseen the advancement of digital skills development in a number of underrepresented populations and demographics, such as youth, females and racialized minorities. Correctional Services Canada falls under Minister Blair's portfolio, and he would serve as a critical ally in the implementation of this initiative.

1

1-3 months

2

3 - 6 months

3

6 - 24 months

4

As a current member of the Prime Minister's Youth Council, Sagar intends to present this initiative to Cabinet Ministers in the coming months, to begin building support amongst fellow Prime Minister's Youth Council members, Federal Ministers and elected officials.

Implement a pilot-study to explore and evaluate the implementation of digital skills learning opportunities in federal correctional facilities. Pilot-study outcomes would help determine the financial feasibility of incorporating digital skills learning opportunities in correctional facilities across Canada, to support incarcerated individuals.

Hindrance Factors



Cost

The implementation of this initiative would require an investment to cover some of the following costs (Canada currently has an incarcerated population of about 47,000 adults & youth):^[1]

- Computer Purchases/Upgrades
- Educational Programming Costs
- Network Connectivity Costs



Security

Correctional Services have previously limited network connectivity. However, the implementation of this initiative could be accomplished through restricted browser access, or network access via a limited local server. Both of these methods have been previously utilized in delivering educational programming.



Institutional Recognition

Currently, correctional education programs must be recognized by a provincial institution to be accepted by Correctional Services Canada. Therefore, partnerships could be pursued with local post-secondary institutions, or regional governments could recognize exemplary online accreditations and certifications.



Program Complexity

For participants to gain self-efficacy and confidence in their digital skills development, programs must be offered at an appropriate level that meet the needs and learning methods of inmates. Therefore, current programs will need to be revised before delivery.



Resourcing Instructors

The implementation of this initiative would require additional education and teaching support, which could be accomplished through partnering with existing digital skills programs (eg. Canada Learning Code)



Current Education

A case study would support our understanding of whether digital skills development is something which is desired by incarcerated persons, as has been demonstrated through similar programs. Also, examining how new programs will be balanced with current education offerings.

[1] <https://www150.statcan.gc.ca/n1/pub/85-002-x/2019001/article/00010-eng.htm>



**SUSTAINABLE
DEVELOPMENT**

GOALS

[8]

Quality Education (Goal #4)

Obtaining a quality education is the foundation to improving people's lives and sustainable development.

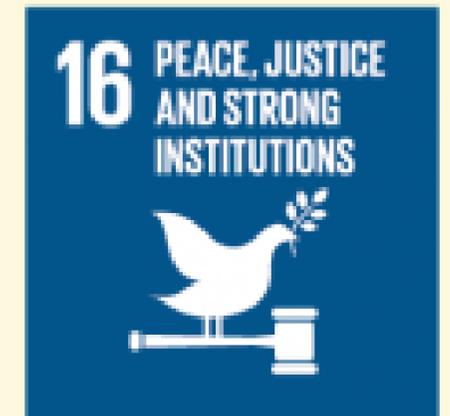
- 4.3 By 2030, ensure equal access for all women and men to affordable and **quality technical, vocational and tertiary education, including University**
- 4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, **including technical and vocational skills**, for employment, decent jobs and entrepreneurship
- 4.5 By 2030, eliminate gender disparities in education and ensure **equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.**

Reduced Inequalities (Goal #10)

To reduce inequalities, policies should be universal in principle, paying attention to the needs of **disadvantaged and marginalized populations.**

Peace, Justice, and Strong Institutions (Goal #16)

Access to justice for all, and building **effective, accountable institutions** at all levels.



Longevity, Sustainability & Impact

Current State

- Low post-incarceration employment rates
- High recidivism rates
- Low education rates
 - Lack of support for post-secondary education
- Social exclusion and stigmatization of Inmates
 - Many of whom are Black or Indigenous
- Digital exclusion due to internet prohibition
- Growing need for digitally skilled workforce
- Limited educational offerings
- Limited translation to potential employment opportunities

Potential Outcomes

- Increased employability rates through teaching relevant digital skills as identified by the Government of Canada for the future of work
- Improved reintegration through providing a holistic education which includes digital literacy, and has proven to reduce recidivism in the USA
- Creation of a more technically-skilled and digitally-literate workforce that can contribute to Canada's growing tech industry and workforce
- Provide skills that lend to participation in the gig-economy through self-employment, freelance work, and entrepreneurial pursuits
- Combatting stigmatization by increasing digital literacy rates and empowering minorities with valuable digital skills and knowledge
- Support vulnerable populations such as Indigenous and Black inmates by providing technical and vocational skills development that are otherwise not included in traditional educational programs
- Increase the breadth of programs offered by partners such as Canada Learning Code and Udacity for diverse learning abilities and levels
- Contribute to fulfilling Canada's 2017 G20 commitment to incorporate "Digital Skills in Vocational Education and Training" (Annex Paper 2, Declaration of the Ministers Responsible for the Digital Economy)