

Virtual CivicLabTO Academic Summit:

Collaborating on Renewal
& Resilience

Technology Innovation & Equity

November 23-24, 2021



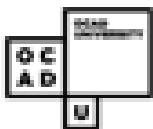
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Partnerships are an important part of academic and municipal work and the delivery of city services ---- and we are proud that CivicLabTO brings together Centennial College, Ryerson University, George Brown College, OCAD University, City of Toronto, Humber College, Seneca College, the University of Toronto, York University and eCampus Ontario on the many innovation-focused collaborations under this initiative.

We are also proud to be working with our funding partner for the summit, the **Social Sciences and Humanities Research Council of Canada** and each of the colleges and universities. Thank you to all our partners.

Our host for the 2021 CivicLabTO Academic Summit is York University. Thank you for providing the forum for these important conversations.



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Land Acknowledgment

As this meeting is virtual and we are not all gathered in the same space, we recognize that this land acknowledgment might not be for the territory that you are currently on. We ask that if this is the case, you acknowledge the traditional territory you are on and the current treaty holders.

For those of us in Toronto, we acknowledge that the land we are on is the traditional territory of many nations including the Mississaugas of the Credit, the Anishinabek, the Chippewa, the Haudenosaunee and the Wendat peoples, and is now home to many diverse First Nations, Inuit and Metis peoples. We also acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

This territory is covered by the Dish With One Spoon Wampum Belt Covenant, an agreement between the Anishinabek and Haudenosaunee allied nations to peaceably share and care for the lands around the Great Lakes.

Polling Question:

Which of the following best describes you?

- a) I am a student
- b) I work in academia
- c) I work in government
- d) I work in an industry other than academia/government
- e) None of the above

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Technology Innovation and Equity

How can academia, government and industry work together to address the barriers faced by equity deserving groups in accessing and benefiting from technology and innovation?



Dr. Beth Coleman
University of Toronto



Lawrence Eta
City of Toronto



Caroline Grammer
Seneca College



Dr. Paolo Granata
University of Toronto



Ben Rogers
Seneca College

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Technology, Innovation and Equity and the City of Toronto

Lawrence Eta



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Digital Transformation

- The Technology Services Division (TSD) provides city-wide leadership in modernizing and innovating City services through strategic technology investments that advance principles of access, affordability and resiliency with equity as a driving factor
- Digitized municipal services are leading to increased efficiencies and improved decision-making, but highlight the increasing need to address issues such as privacy, security, and equity.
- As the use of digital technologies increases, the City is developing a **Digital Infrastructure Plan to guide decision-making**

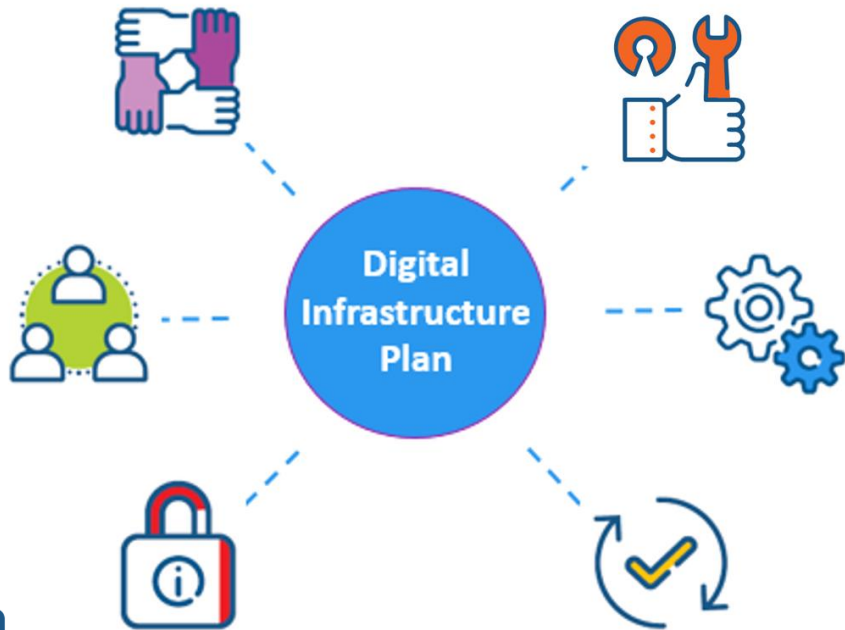


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Digital Infrastructure Plan



1. Equity & Inclusion



2. A Well-run City



3. Social, Environmental, & Economic Benefits



4. Privacy & Security



5. Democracy & Transparency



6. Digital Autonomy

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Digital Equity & ConnectTO



Expanded High-Speed Internet Access for underserved Torontonians

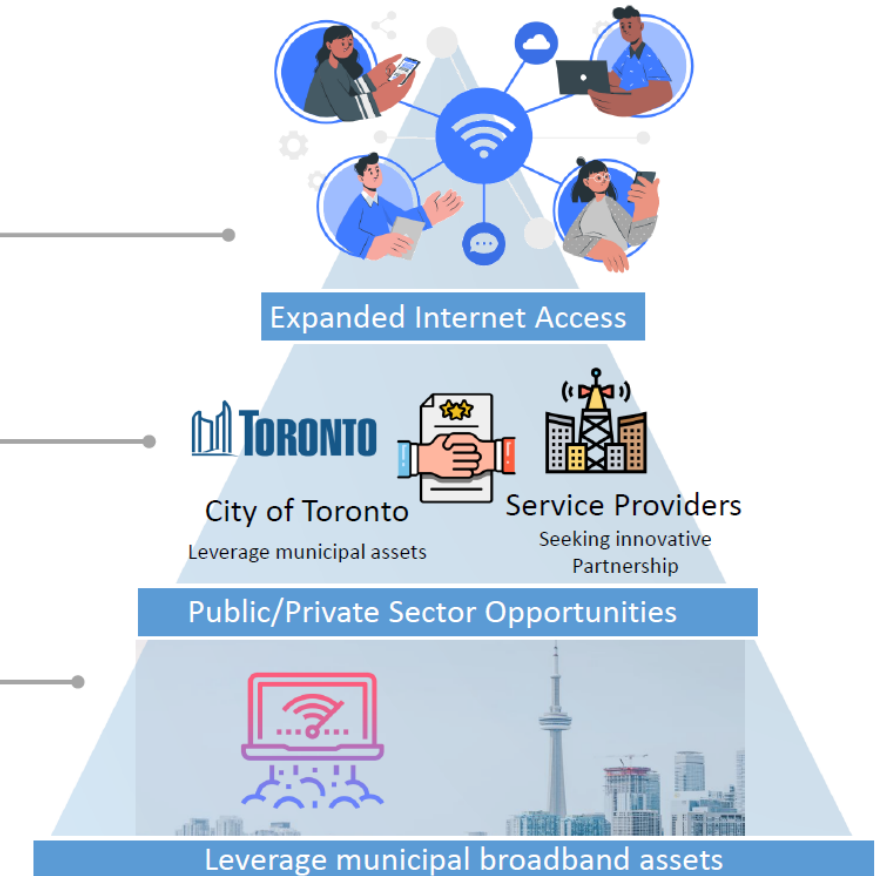
Reduce the digital divide by
improving digital connectivity

Partnership Opportunities

Co-Development
public/private collaboration

Municipal Broadband

Leverage municipal assets to
create connected digital
infrastructure



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Technology, Innovation and Equity Alignment to UN Sustainable Development Goals & Framework

Paolo Granata



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Established in 2019 at St. Michael's College in the University of Toronto, the Media Ethics Lab is a research hub that studies the ways that digital media practices and emerging technologies are marked by ethical issues and decisive political, societal and cultural questions.

Serving as a focal point for information related to academic programs, research, and public policy initiatives in the field, the Media Ethics Lab fosters open research, integrated learning, and civic engagement to explore the potential that information and communication technologies hold for enacting positive social change.



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ST. MICHAEL'S COLLEGE
IN THE UNIVERSITY OF TORONTO

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Digital Equity

or what it means to foster inclusive and equitable communities for all.

Digital City

or how merging technology with urban environments requires rethinking internet accessibility and privacy.

Digital Literacy

or how to empower communities through cultivating important skills for the 21st Century.



Global Goals

The academic research and collaborative efforts we lead are nothing if not for the greater good, as we must not only work towards a healthier digital world, but a more equitable planet. All of the Media Ethics Lab's efforts to better understand and improve digital realms such as digital cities, equity and literacy are done in support of the UN's sustainable development goals.

[Learn More >](#)

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Through tangible research results and the collaboration that fosters such results, we strive to progress in particular the following goals:



Our efforts in **Digital Equity** are in support of reducing inequality within and among countries.



Our efforts in **Digital City** are in support of making cities and human settlements inclusive, safe, resilient, and sustainable.



Our efforts in **Digital Literacy** are in support of ensuring inclusive and equitable quality education and promote lifelong learning.



We are committed to strengthening the means of implementation and revitalize the global partnership for sustainable development.

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CALL TO ACTION IN RESPONSE TO THE COVID-19 PANDEMIC

Reducing Digital Inequality

#DigitalCloseness

Campaign During a Time of Social Distancing

[#DigitalCloseness](#)

WWW.MEDIAETHICS.CA/DIGITALCLOSENESS



In response to the **#COVID19** pandemic, we all have the responsibility to ensure everyone in our communities can connect to the Internet. Facing the social consequences of the coronavirus outbreak requires acknowledging digital inequality and building bridges to overcome barriers to digital inclusion.

In 2011, the United Nations' Human Rights Council defined the internet as an indispensable tool for realizing a range of human rights, and recommended that Internet access should be a priority for all States.

While facing this global emergency, Internet access must be conceived as a basic human right, necessary to the quality of life, – everyone is entitled to access to it.

It is our view at the University of Toronto's Media Ethics Lab at St. Michael's College that nobody should be left behind.

In a state of emergency and self-isolation, we all can do our part to ensure that all individuals and communities, including the most disadvantaged, both in cities and remote areas, have access to the Internet to thrive.



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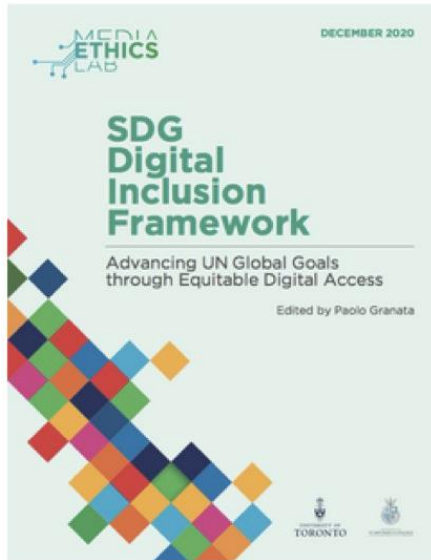
Home > Reports > SDG Digital Inclusion Framework

Digital City Digital Equity Digital Literacy News Reports SDGs

SDG Digital Inclusion Framework

Media Ethics Lab, edited by Paolo Granata

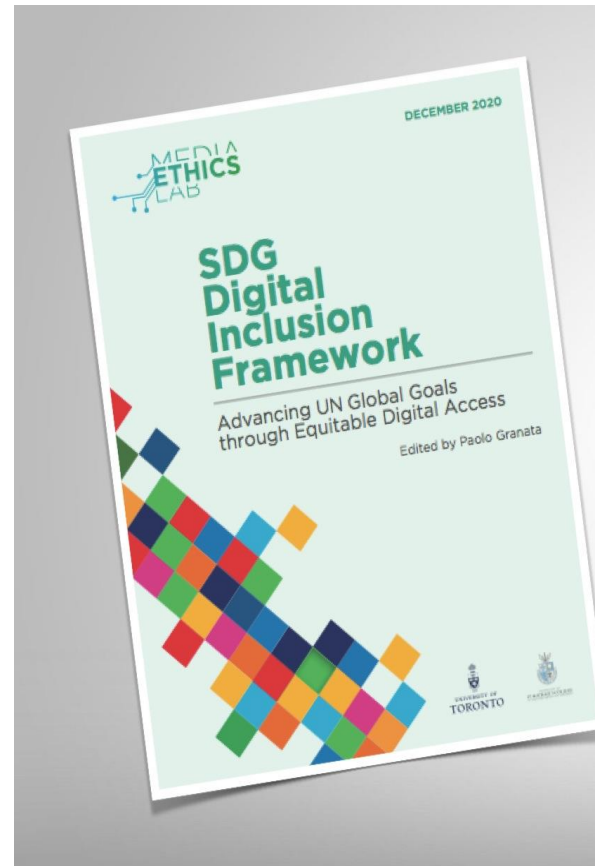
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This framework provides commentary and recommendations on how digital inclusion and digital equity initiatives can align to and help accelerate progress towards UN Sustainable Development Goals (SDGs).

Universal in scope and benefitting from a coordinated effort across all sectors, the framework encourages a digital inclusion approach to the UN Sustainable Development Goals with the aims of: contributing to existing efforts to advance and integrate digital inclusion strategies in the SDGs in order to gain a more holistic

and systemic perspective, and provide practical guidelines to further illustrate how an equitable digital access can accelerate the progress towards achieving the Sustainable Development Goals.



Target Overview

Identifying the main issues

Direct and Holistic Impact

Advancing this target

Key Stakeholders

In the context of digital inclusion

Key Indicators

How to measure

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SDG TARGET ID: 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.

KEY ISSUES OVERVIEW

As workplaces increase the use of digital technology, the demand for digital skills are critical in finding a job. However, not everyone has access to this technology or quality education to learn such skills. The lack of these skills is a key barrier that keeps people from fully benefiting from these technologies. As a result, people are left unemployed while ICT talent is in demand.

By providing increased and more diversified learning opportunities for all, the population can acquire relevant skills and knowledge for decent work and life. According to ICTC, the number of Canadian ICT graduates is insufficient to satisfy ICT market needs. If given education and employment opportunities, Indigenous people can fill this gap. People in low-income households and those who do not have the means or resources to access educational programs can also fill this gap, increasing their participation in the ICT labour force can generate a greater pool of skilled workers and satisfy the demand of this growing industry. This will also directly create economic benefits and improve health and well-being for individuals and their communities.

DIRECT IMPACT

Addressing this target requires the implementation of policies and creation of programs aimed at improving ICT access and education in Indigenous and low-income communities. This will enable these communities to have access to this technology and learn how to use it. As a result, they will acquire the relevant skills needed to get a job in the ICT-related fields. This will decrease unemployment rates in these communities.

HOLISTIC IMPACT

Advancing in technology, the education of... Access to quality

KEY STAKEHOLDERS

- ✓ The government is needed to fund programs for adults to increase ICT skills and access to ICTs (ex: in libraries, subsidize home computers for low-income households). It needs to direct more funding to schools. It needs to ensure that its population has access to ICTs (ex: schools in remote areas).
- ✓ The Ministry of Education needs to update the school curriculum, taking into account students who do not have access to technology at home. This body must also review the given data in order to better service the population or communities that are disadvantaged and contribute to a more inclusive society.
- ✓ Teachers need an updated training on how to teach students how to use and work with ICTs in and out of the classroom.
- ✓ Organizations and businesses could organize workshops to train adults (out of secondary school or post-secondary education) to use ICTs and in digital literacy.

INDICATORS

- The effectiveness of digital inclusion strategies can be measured through evaluation reports of the following data:
- ✓ Proportion of youth and adults with information and communications technology (ICT) skills, by type of skill (%)

CASE STUDY

The Digital Literacy Exchange program invests in Canadian not-for-profit organizations in their delivery of digital literacy training initiatives. This targets Canadians who need to upgrade their education and skills in order to "enable all Canadians to participate in—and benefit from—a connected and digitally engaged society." These Canadians include: seniors, people with disabilities, newcomers to Canada, and Indigenous peoples, among other vulnerable communities. In 2019, the government invested \$750,000 in a Peel Multicultural Council project to develop fundamental digital skills. For instance, MediaSmarts and YWCA Canada provide workshops on digital and media literacy across the country to under-represented groups, like Indigenous women and low-income Canadians. This is to "create a safer digital world for women and girls while addressing the need for safety privacy training for women to empower them online and offline."



SDG TARGET ID: 10.2

By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status.

KEY ISSUES OVERVIEW

In low to medium income areas, there is often a lack of digital infrastructure and knowledge. This lack of access further propagates the digital divide, as these communities cannot engage in modern uses of technology.

Disenfranchised communities are negatively impacted by this issue, as they are not able to engage in societal conversations or be aware of ongoing issues in society without access to the internet. If this issue of access was solved, these communities would be empowered to contribute to political discussions as they have new means to connect and discuss issues they face with people in similar circumstances.

in income, education and opportunity become addressed, which ultimately closes the digital gender gap;

- ✓ Target 4.3, as it would ensure the equal access for all individuals to receive affordable and quality education and would educate students on political/social engagement;
- ✓ Target 4.7, as it would ensure all learners and individuals have the proper skills and education to participate socially and politically to promote a sustainable development and lifestyles.

KEY STAKEHOLDERS

- ✓ Government agencies would need to be the most involved in this process, as they can provide crucial supports for telecommunication firms to install new infrastructure and reduce their costs. They can also enact public policy to help drive the movement to get people online. This would be a mutually beneficial arrangement as the government would be

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Call to Action

What's next?

We have the responsibility to ensure everyone in our communities can connect to the Internet. Facing the social consequences of the coronavirus outbreak requires acknowledging digital inequality and building bridges to overcome the barriers to digital inclusion. Our main goal has been to align the United Nations' Sustainable Development Goals with digital inclusion strategies using what we have termed, "An SDG Digital Inclusion Framework."

THE TOOLKIT

In companion with the SDG Digital Inclusion Framework, we have developed the SDG Digital Inclusion Toolkit, which provides individuals with a means of tracing the effectiveness of their digital inclusion projects, and whether they are adequately aligned with the Sustainable Development Goals. It is a set of processes that will help you to evaluate the impact of your digital inclusion project. It will also allow you to show others how successful your initiatives have been at creating change, and areas that can be improved moving forward in order to generate an even greater impact.

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Digital Access and Older Adults Living in Toronto: Reducing the Digital Divide

Caroline Grammer

Seneca

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Mixed Method Study (Quantitative Surveys & Qualitative Interviews with Older Adults)

Surveys were distributed to all:

- LTC and Retirement Homes in the City
- Seniors Community Support Service Agencies
- Shelters that service older adults, and the Anishnawabe Health Centre though we can only identify settings by the first 3 digits of their postal code

Low response rates due to COVID19 crisis and re-deployment of staff

Results:

- Majority of LTC homes report they provide internet access to all rooms and throughout the home but have limited number of devices and majority of residents require assistance using devices and navigating the internet
- Majority of Retirement homes report they don't provide free wifi access in residents' suites but do provide access in common and the majority of these residents pay for their own internet in their suites
- In both LTC & Retirement homes - majority of residents prefer tablets over any other device and both use the internet for social media and emails, connecting to family and friends virtually; a small percentage of residents stream entertainment and play games online

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- 10 community agencies that responded in the community represent approx. 39, 835 older adults service across Toronto's 6 boroughs
- Majority of agencies report majority of their clients are low-income approx. \$800-\$1200/month and cannot afford the devices or the internet access providers monthly fees
- More than ½ their clients live independently in the community with minimal service support
- Scarborough, Etobicoke, and York report the lowest levels of internet access leaving older adults living alone under isolation protocols completely cut-off from access to medical, health, social, and financial support
- Majority of these clients prefer tablets and use internet for emails, social communication, and to link with the agencies' virtual online programming e.g. exercise, cooking programs, social programs, group support etc.
- Those requiring supports services, require 1:1 assistance with using devices and navigating the internet and social networks due to cognitive, functional, and sensory deficits, or low digital fluency/literacy levels
- Note: when interviewing the frontline healthcare providers they report that they use their own devices and data plans and spend extra time with their clients (unclaimed) to assist them with connecting with families and friends, and healthcare providers etc.

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Let's Hear What Older Adults Had to Say...

- Our team interviewed 14 older adults 60+yrs across Toronto in 10 different languages (English, Italian, Tagalog, Vietnamese, Mandarin, Cantonese, Spanish, Urdu, Hindi, Punjabi) by telephone and virtually
- They were asked about their lived experiences of lockdown without internet access
- Data included experiences of loneliness, isolation, higher levels of depressive symptoms, discussions around suicidal ideation and “giving up”, feeling trapped and imprisoned (in LTC and Retirement homes)
- Further anecdotal reports from my students on the frontline over the past two years report increased levels of cognitive impairment, decreased levels of functional independence in IADLs and ADLs, lowering levels of resiliency in LTC home settings, more frequent reporting of loneliness and wanting to die

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Barriers to Access

- Cost of high speed internet is too high, devices also cost too much
- Phones are more difficult to use because the screen and buttons are too small
- All digital literacy programs for older adults shut down when the libraries and senior centres shut down during lockdown preventing older adults from access the internet and devices
- Language barriers prevent many newcomers and older adults returning to their natural languages from navigating government and social network sites
- Confusing terminology and attempting to navigate the labyrinth-like websites to get the information they need is far too complicated e.g. registering for their first vaccination, and their second. While telephone registration was available, seniors often waited over an hour on the phone only to be cut-off before they could register
- Lack of 1:1 supports for those with cognitive, sensory, or functional impairments leaves the most vulnerable population the most isolated

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Themes

- Redefine “access” to include free high speed internet access, a device (tablet), digital literacy training, and 1:1 support for those with disabilities
- Internalized Incompetency; younger cohorts presume older adults cannot learn digital technology, there remains a strong entrenched level of ageism and ableism especially in the medical field. Older adults begin to believe the message that they can’t learn. Older adults have been left behind during the transition to digital services.
- Social Isolation is just as lethal as COVID19 to older adults, if they are not dying of the virus, they are giving up on living because they are isolated and alone

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What Can We Do To Solve This?

- The City has begun to build internet access to all TCHC buildings with older adults
- Seneca's SSWG program has started free digital literacy training for older adults in Toronto and York Region (contact Caroline.Grammer@senecacollege.ca OR 416 491 5050 ext 55449 for more information or to register)
- Start a 5yr National Digital Literacy Program engaging high schools, post-secondary schools in field placements, train the trainer program of volunteer older adults, and funding to all senior support service agencies and institutional settings to purchase enough tablets and staff to train older adults online and in their centres
- Funding for PSWs and Activation Aides for additional time to provide 1:1 support for every resident for 15 minutes/day on the internet and in the community for those living independently to connect to their healthcare providers and social networks at least two days per week for 15 min/day

WE CAN DO THIS!

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Digital Exclusion and Remediation Equity

Beth Coleman



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- Equity
- Data Colonialism
- Decolonial Data
- Multi-stakeholder
- Data Ethics Co-creation Intentional Design

Polling Question:

How equitable do you think access to technology is in the City of Toronto using of scale 1-5?

1

2

3

4

5

(1 – not equitable at all, 5 – most equitable)

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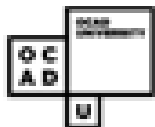
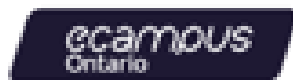
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Panel Discussion & Audience Questions

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Closing Remarks



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Thank You!

- www.civiclabto.ca
- Free digital literacy training for older adults
contact Caroline.Grammer@senecacollege.ca
- Digital Infrastructure Plan
<https://www.toronto.ca/wp-content/uploads/2021/09/8ff3-DIP-FINAL-Ethelo-Sep-23-Accessible.pdf>

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