



Declaring a Digital Literacy Day in Toronto

Date: September 28, 2017

To: Economic Development Committee

From: General Manager, Economic Development and Culture

Wards: All

SUMMARY

Toronto is the largest city in Canada and its business and financial capital. The city ranks in the top ten globally across many indices. The city's stature as a global economic hub is based on a highly educated, diverse workforce—an asset across many sectors.

Technology is fundamentally changing the way we live, work, learn and play—if access to broadband is an essential service, then digital literacy is a necessity to navigate this transformation. Cities are at the heart of this 'Industrial Revolution 4.0' yet there is no consensus on a definition of “Digital Literacy”. Canada does not have a national digital literacy strategy and efforts to educate and train in this space are fragmented across the province. Given this environment, Toronto has an important opportunity take a leadership role to ensure the City maintains its leading economic and human capital edge.

The City of Toronto is a champion of digital innovation with accomplishments such as Digital Main Street, 311, Benefits Card, Open Data, Service Modernization and many more. The city is equally lauded for assets such as the innovation ecosystem, the Toronto Public Library and Waterfront in an economy that boasts thriving Technology, Financial and Business Services and Education sectors.

The report responds to City Council direction to report back on the resources required to declare a Digital Literacy Day in 2018.

RECOMMENDATIONS

The General Manager, Economic Development and Culture, recommends that:

1. The Economic Development Committee request that Economic Development staff work within existing city processes to have a Digital Literacy Day proclaimed in Toronto in May 2018.

FINANCIAL IMPACT

There are no financial impacts associated with the adoption of the recommendations in this report. Support for Digital Literacy Day would be accommodated within the Economic Development and Culture Division's current base Operating Budget . Any findings and/or recommendations from the Digital Literacy Working Group which may have costs will be brought forward in a future budget submission by the respective division(s).

The Deputy City Manager & Chief Financial Officer has reviewed this report and agrees with the financial impact information.

DECISION HISTORY

At its May 2017 meeting, City Council adopted the following motion:

City Council direct the City Manager to work with the appropriate City staff and the Mayor's Advocate for the Innovation Economy to report to the Economic Development Committee in September 2017 on the resources required to declare a Digital Literacy Day in May 2018.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2017.MM29.8>

COMMENTS

In May 2017, Councillor Holland convened a group of division heads from Information and Technology (IT), Economic Development and Culture (EDC) and Employment and Social Services (TESS) as well as the Toronto Public Library (TPL) and Cisco to discuss the importance of a digital literacy day in Toronto. In June, a Digital Literacy Working Group (DLWG) was established to develop and recommend an approach to declaring a Digital Literacy day in Toronto (See Attachment A). In July, correspondence of the initiative was also sent to the Toronto Region Board of Trade's Smart Cities Working Group as a proxy for local stakeholders.

A literature, event and program scan was undertaken by the DLWG with significant assistance from the Brookfield Institute for Innovation + Entrepreneurship (See Attachments B, C and D). It was agreed that the concept of a Digital Literacy Day was already established in many international jurisdictions and that a Toronto declaration would set the City on a leadership course in Canada. This concept resonated well with local stakeholders.

In light of the above, TPL offered to host a Digital Literacy Day launch event at the Toronto Reference Library along with partners to celebrate Toronto's accomplishments. The event could also be simultaneously linked to several library branches located in several Toronto wards along with the local Councillor present to illustrate the power of community, collaboration and connectivity (see Attachment E). City Leadership and stakeholders would be invited to play a prominent role at the launch event. There is the potential to incorporate a Toronto Public Service Digital Training Day as part of the celebration. The City has an opportunity to promote its many smart accomplishments such as Digital Main Street, 311, Service Modernization, Open Data Initiative, etc. as well as its commitment to digital literacy and equity through the workings of TESS and Social Development, Finance and Administration (SDFA) divisions through the Poverty Reduction and Workforce Development Strategies. There is also the potential for co-ordinated communications from sector partners to promote and amplify our collective digital learning efforts.

Given the fundamental importance of digital access and skills, the working group concluded that a Digital Literacy Day in Toronto would provide a collaborative forum to better understand and communicate developments in this space and potentially further catalyze ongoing developments and partnerships.

Proclaiming a Digital Literacy Day

The City of Toronto's City Clerk's Office, Strategic Protocol and External Relations manages the process to declare or proclaim a "day". Proclamations are issued at the discretion of the Mayor. Requests must be made on an annual basis.

More information can be found at the following link:

<https://web.toronto.ca/city-government/awards-tributes/tributes/proclamations-congratulatory-scrolls-and-letters-of-greeting/proclamations/>

NEXT STEPS

- DLWG will research and recommend a specific date for Digital Literacy Day in Toronto by the end of October.
- EDC will complete the online request to have the Mayor of Toronto declare a Digital Literacy Day (May 2018) in November 2017.
- Toronto Public Library will develop an event plan for Digital Literacy Day in partnership with the DLWG and provide details by the end of January 2018.
- The IT Division will scope out the potential for a TPS Digital Training element as part of the event celebrations and report back to the DLWG by the end of November.
- A more fulsome discussion by senior management on the importance of Digital Literacy going forward and who should lead efforts from the City and its stakeholders should occur as part of a post-event debrief in 2018.
- Determine how the City and the Brookfield Institute for Innovation + Entrepreneurship can partner to deliver a State of Digital Literacy in Toronto research report in 2018.

CONTACT

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SIGNATURE

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ATTACHMENTS

- A. Digital Literacy Day Working Group
- B. Calendar of Digital Literacy Events in Toronto 2017-018
- C. Overview of Digital Literacy Program Offerings in Canada
- D. Various "Informal" Toronto-based Digital Literacy programs
- E. TPL Telepresence Locations

Attachment A: Digital Literacy Working Group

Brookfield Institute of Innovation and Entrepreneurship
Canada Learning Code
City of Toronto: Councillor Holland's Office, The offices of the GMs of TESS and EDC,
and the CIO
CISCO
IBM
ORACLE
Rogers Communications
Toronto Public Library

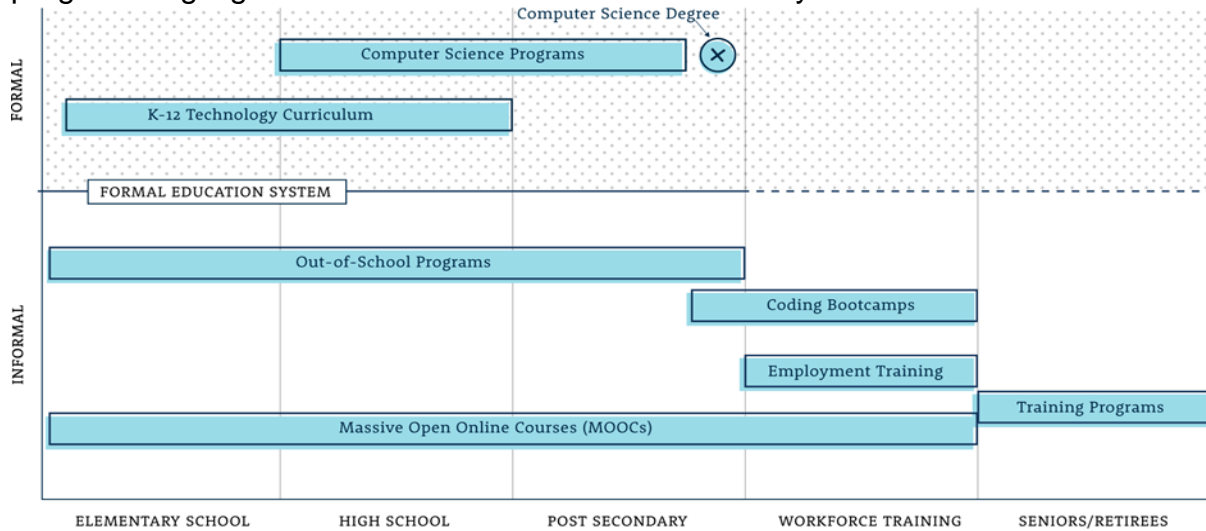
Attachment B: Calendar of Toronto Digital Literacy Events 2017-18

| Timing | Event | Date | Organizer |
|---------------|--|---------------------|---|
| October 2017 | Workforce Development Month IBMSTEM4Girls @ SIBOS presented by CIBC | 18th | CoT- TESS IBM and CIBC |
| November 2017 | Media Literacy Week IBM Canada Technology Workshop for Middle School Students | 6th- 10th TBD | IBM Canada Global Business Services |
| December 2017 | Hour of Code programs during Computer Science Week | 4th- 10th | Hour of Code and Computer Science Education Week Advisory and Review Committees |
| March 2018 | TPL Open Data Hackathon (and related programs) | TBD | Toronto Public Library / Open Data Institute of Toronto |
| May 2018 | Techspo Digital Media Summit Go Open Data Conference | 9th TBD | Go Open Data Conference |
| June 2018 | Coding Week | | Canada Learning Code |
| July 2018 | Maker Festival | 7-8 | Maker Festival / Toronto Public Library |

*Note: a preliminary and not exhaustive summary of events in the area

Attachment C: Overview of digital literacy program offerings in Canada

Below is a schematic of the digital literacy program landscape in Canada developed by Brookfield Institute for Innovation and Entrepreneurship. There are numerous for-profit and not-for-profit organizations offering digital literacy training, particularly coding skills, the vast majority of which have emerged outside of the formal education system. The programs highlighted below focus on this latter area only.



D. Various "Informal" Toronto-based Digital Literacy programs [in alphabetical order]

These preliminary programs were selected as they can benefit many segments of the community. They are designed to teach important digital skills from using digital tools, staying safe online to programming

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| <i>ABC Life Literacy Canada</i> | |
| Objective | The ABC Internet Matters pilot program featured an introductory series of 3-hour facilitated learning sessions. Learning topics included why the internet matters, how to use the internet safely, basic skills needed, and how to access and grow skills to support life moments (ie. job search, community engagement). |
| Target Audience | Providing adult learners with a safe, supportive environment to acquire and grow their digital literacy skills. |
| Delivery Model | ABC Internet matters was piloted at select Toronto Community Housing locations in November 2016. |
| <i>Actua: Codemakers</i> | |
| Objective | To engage 100,000 youth across Canada in digital skill building experiences that move them from being consumers of technology to producers of it. |
| Target Audience | Ages 6 – 14 |
| Delivery Model | Offers programming to club programs, summer camps, and school workshops in every region of Canada - in particular, to underserved youth populations, including Aboriginal youth, girls, New Canadians, and young people facing significant socioeconomic challenges Partnership with Google |
| <i>Bitmaker</i> | |
| Objective | To promote programming literacy |
| Target Audience | Adults seeking to develop tech skills for career advancement |
| Delivery Model | Offers part-time and full-time programs that range from 4 to 12 weeks in design, development, and digital marketing. |
| <i>Code.org</i> | |
| Objective | To give every student in every school the opportunity to learn computer science. |
| Target Audience | Ages 4+ |
| Delivery Model | Provides an open-source learning platform designed to teach students the basics of computer science, starting as early as kindergarten. |
| <i>Coursera</i> | |
| Objective | Coursera provides universal access to the world's best education, partnering with top universities and organizations to offer courses online |
| Target Audience | Massive Open Online Courses (MOOC) open to anyone, anywhere |

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| Delivery Model | <p>Deliver courses, specializations and degrees</p> <p>Online platform that provides course content from top universities and education providers</p> <p>University of Toronto has partnered with Coursera to provide learning modules on programming languages.</p> |
| <i>CISCO Networking Academy</i> | |
| Objective | A global Information Communications Technology (ICT), networking and soft skills learning program. |
| Target Audience | to help citizens of Toronto get access to courses which would help them become more employable |
| Delivery Model | <p>Cisco is partnering with the Toronto Public Library and George Brown College using TelePresence Units and Networking Academy to help citizens of Toronto get access to courses which would help them determine if they have an interest in an IT career while becoming more employable.</p> <p>Introduction to Cybersecurity and Introduction to IoT are Exploratory Courses delivered at Self Pace, while Foundational Courses such as Cybersecurity Essentials, Networking Essentials and Mobility Fundamentals would be leader led. Career Ready - IT Degree courses can be accessed through George Brown College.</p> <p>TESS is exploring options for using CISCO's technology to enhance its current programs.</p> |
| <i>Government of Ontario (MAESD) CODE DAY</i> | |
| Objective | Participants spend a full-day working on their projects or learning new methods. |
| Target Audience | civil servants to step outside their normal workflow to focus on analytical, digital or technical projects with a community of like-minded colleagues |
| Delivery Model | In house program TBD. |
| <i>IBM Canada STEM4Girls</i> | |
| Objective | Participants gain experience with circuits and robotics as well as coding. They learn about engineering through hands on challenges, such as tower building and shoe design. The program also focuses on building self-esteem and communication skills integral to ensuring girls have the confidence and belief in themselves to pursue STEM focused education and paths typically considered "for boys". |
| Target Audience | Girls, grades 6-12 |
| Delivery Model | Activities can be done in school classrooms, IBM locations, community centers, after-school programs, and non-profit organizations. Content includes STEM + Art. Workshops, Design Thinking sessions, science experiments, opportunities to learn and ask questions about IBM Watson & Cognitive Computing, "The Internet of Things" and Cyber Security. |

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| <i>IBM Canada Youth and Learning Camps</i> | |
| Objective | Designed to build self-confidence and enhance their understanding about various aspects of STEAM , the camps aim to deliver fun, hands-on technical and non-technical activities, led by IBM employees. The camps encourage youth to stay engaged with STEAM focused education to better prepare them for career opportunities in this ever changing world. |
| Target Audience | Underserved Girls and boys, grades 5-12 |
| Delivery Model | The camps are customizable (1 - 5 days) and are intended to provide interactive STEAM experiences that encourage problem solving, creativity, and teamwork. |
| <i>Kids in Tech</i> | |
| Objective | Digital literacy initiative 16-week pilot program at Nelson Mandela School. While the focus of their program is on coding, STEAM education – an acronym for science, technology, engineering, art and math – helps build other important skills such as project planning and presentation. |
| Target Audience | Offers professional development for educators and facilitated workshops for elementary school students |
| Delivery Model | Adapting their current program to run in about 20 schools by the end of the year, and hope to expand to all 150 TDSB model schools over time. This summer, they hope to reach more students through a summer program |
| <i>MediaSmarts</i> | |
| Objective | Canada's centre for digital and media literacy that provides digital literacy literature and curriculum for teachers and parents. |
| Target Audience | K-12 |
| Delivery Model | Develop and deliver high-quality Canadian-based digital and media literacy resources Provide leadership in advancing digital and media literacy in Canadian schools, homes and communities Contribute to the development of informed public policy on issues related to media. |
| <i>NPower</i> | |
| Objective | To provide youth with proven, no-cost training for skilled, in-demand information technology skills. |
| Target Audience | Ages 18 – 29 |
| Delivery Model | 15 weeks of complete training including Cisco-designed IT Essentials to prepare for A+ certification along with professional development and life skills coaching. Hands-on learning is enriched by one-to-one mentorships with tech professionals and an internship. Partnership with CivicAction, Ryerson University, TD Bank |
| <i>Ladies Learning Code</i> | |

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| Objective | Increase diversity in Canada’s tech community through teaching computer programming and other technical skills, and increase digital literacy. TESS, on behalf of the City of Toronto, has been the largest referral source to the NPower Program since it was launched in Toronto in 2015, and has provided paid placements for 33 NPower interns. |
| Target Audience | All ages, with a strong emphasis on youth aged 8 – 13 |
| Delivery Model | Run by local chapters across Canada Delivered in one-off workshops or training camps over a number of weeks Aims for a ratio of 4:1 of learners to volunteer mentors |

TORONTO EMPLOYMENT & SOCIAL SERVICES

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| Objective | Supports Toronto residents in receipt of Social Assistance with financial benefits, social supports and employment services. Programs and services |
| Target Audience | Ontario Works (OW) Clients |
| Delivery Model | kids@computers: kids@computers was launched in 2001 as a scholarship program to provide children from low-income families with home computers. At the time, establishing this program recognized the importance of levelling the playing field for low-income children. Through the provision of a home computer, these children (and their families), were given an opportunity to gain the knowledge, skills and confidence needed to succeed in today's world. Over 20,000 children between the ages of 8-14 receiving a computer to date Technology Sector Workforce Development: Sector-focused employer and stakeholder engagement and employment opportunities/pipeline development. Training: Contracted services for training and career development in the technology sector. Workshops: Partnership with Toronto Public Libraries to support OW job seekers over the age of 45 with developing knowledge and skills in digital and online tools and resources. |

Oracle Academy

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| Objective | Introduce middle school and high school students to programming through a workshop and challenge |
| Target Audience | Students from Toronto enrolled in grades 7 to 10 |

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| Delivery Model | Requires a higher education partner or school district that is willing to host the event on its campus. The partner must be able to provide the computers and IT support for the event, as well as volunteers (either faculty or students) who are able to teach the workshop. |
| <i>Ryerson Digital Media Zone –Sandbox</i> | |
| Objective | to increase digital innovation and community-building outside of Toronto’s booming tech industry |
| Target Audience | All ages classes to the public in downtown Toronto |
| Delivery Model | Sandbox is partnering with other organizations, such as RBC, MaRS and RED Academy, to offer classes in coding, financial literacy, web development, web design and user experience design in the future. Typically, enrolling in programming courses can cost thousands of dollars. At Sandbox, it’s an opportunity to get a taste for the field without any financial or academic requirements. |
| <i>Shape The Future</i> | |
| Objective | Their vision is that every home in Canada that needs a computer will be able to afford one. Digital literacy and full engagement in work, home and social life involve basic computing capability regardless of income or status. |
| Target Audience | Families unable to afford computers; therefore have limited access to digital tools and services. |
| Delivery Model | Work with social service agencies to identify families in need and make them aware of this special program. Collect donated products and services from Corporate and Private sponsors |
| <i>TORONTO PUBLIC LIBRARY</i> | |
| Objective | Empowers Torontonians to thrive in the digital age and global knowledge economy through expanded access to technology, lifelong learning and diverse cultural and leisure experiences, online, in our branches and in the community |
| Target Audience | All ages |
| Delivery Model | Access to Technology Public access to technology is a key driver of global competitiveness and economic prosperity, leading to a better quality of life for all. The library plays a leadership role in advocating for and providing equitable access to technology to bridge the digital divide and advance digital inclusion. The library provides access to current and emerging technology to support residents’ full participation in society, in the digital future and in the global knowledge economy. Internet and Computers Free access to computers, WiFi and internet services is available in all 100 library branches across the city. The library provides access and designs services in recognition of the fact that the library is the main access point for the internet and technology for some |

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| | <p>residents. TPL also offers a WiFi Hotspot Lending program, funded by the City's Poverty Reduction Strategy and Google, to offer home internet access to residents without home internet service and residing in the City's Neighbourhood Improvement Areas.</p> <p>Digital Innovation Spaces Digital Innovation Hubs and Pop Up Learning Labs are available across the city and offer access to new and emerging computer, multi-media and digital equipment and software that allow users to create a broad range of digital media. The Digital Innovation Hubs allow users of all ages and skill levels to innovate, design, develop, and incubate ideas, and create and experiment in positive ways and provide acc. Programs and classes offered support a range of user needs and aspirations: artistic creation, life-long learning, skills development, entrepreneurship and recreational enjoyment. Pop Up Learning Labs are mobile innovation programming kits with digital and maker equipment and expert staff to provide programming and access to technology across library branches and out in the community.</p> <p>Digital Literacy Training The library offers digital literacy instruction and training services to residents of all ages to gain a range of digital literacy skills from basic computer use and Microsoft Office training to coding, robotics, and multi-media creation. Training options reflect resident and community needs and interests and are offered via formal technology training classes, online training materials, one-on-one sessions with library staff and via informal assistance. While training and support is available in all branches, the library also has 17 Computer Learning Centres with dedicated PCs to serve as primary locations for formal digital literacy training and classes. For a list of sample programs, visit: Computer & Library Training: http://www.torontopubliclibrary.ca/programs-and-classes/categories/computers-library-training.jsp</p> |
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Attachment E: TPL Telepresence Locations

| Location | Ward | Councillor |
|--------------------|-------------------------|---------------------------------|
| Albion | 1 – Etobicoke North | Cllr. Vincent Crisanti |
| Bloor/Gladstone | 18 - Davenport | Cllr. Ana Bailão |
| Cedarbrae | 43 – Scarborough East | Cllr. Paul Ainslie |
| Lillian H. Smith | 20 – Trinity Spadina | Cllr. Joe Cressy |
| Malvern | 42 – Scarborough-Rouge | Cllr. Neethan Shan |
| Northern District | 16 – Eglinton-Lawrence | Cllr. Christin Charmichael Greb |
| North York Central | 23 – Willowdale | Cllr. John Fillion |
| Richview | 4 – Etobicoke Centre | Cllr. John Campbell |
| S. Walter Stewart | 29 – Toronto - Danforth | Cllr. Mary Fragedakis |

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|---------------------------|------------------------------|------------------------|
| Toronto Reference Library | 27 – Toronto Centre-Rosedale | Cllr. Kristyn Wong-Tam |
| York Woods | 8 – York West | Cllr. Anthony Perruzza |