

Rogers Cybersecure Catalyst

5

YEARS OF CYBER IMPACT

2018 - 2023

Toronto
Metropolitan
University



ROGERS
cybersecure
catalyst

Rogers Cybersecure Catalyst is Toronto Metropolitan University's national centre for training, innovation and collaboration in cybersecurity.

Established in 2018 and offering programs and services across Canada and around the globe, the Catalyst empowers individuals and organizations to seize the opportunities and tackle the challenges of cybersecurity.

Together with our partners and collaborators, we work to realize a vision of healthy democracies and thriving societies, powered by secure digital technologies.



“Core to the Catalyst’s work is bringing together, through an industry-facing focus, key stakeholders including private sector firms, not-for-profit organizations, the public sector and government, and academic partners. In this way, we are enabling capacity building, developing and supporting pathways to accelerated training, identifying new ideas and innovations, and addressing critical challenges in cybersecurity, through diverse perspectives, collaborations and partnerships.”

Dr. Steven Liss

Chair of the Board of Directors,
Rogers Cybersecure Catalyst &
Vice-President of Research & Innovation,
Toronto Metropolitan University

OUR FOUNDING PARTNERS



Proud recipient of support from
the Government of Canada
through the Federal Economic
Development Agency of
Southern Ontario.

A Message from our Founding Executive Director

From its launch just five years ago, Rogers Cybersecure Catalyst has become a dynamic force in the Canadian cybersecurity ecosystem.

This report sets out the extraordinary impact the Catalyst has had on students, new cybersecurity professionals and promising cyber executives; on entrepreneurs and cyber start-ups; on children and youth; on SMEs and large enterprises across a variety of key sectors; and on cybersecurity research, policy and public education.

And we're just getting started.

Our mission at the Catalyst is to empower individuals and organizations to seize the opportunities and tackle the challenges of cybersecurity.

We do this by delivering unique, market-leading programs and services for a variety of audiences. Our agility allows us to identify gaps in the cyber ecosystem and address these gaps by bringing initiatives and resources to market quickly.

We are driven by our belief that building gender and cultural diversity into the next-generation cybersecurity workforce is mission-critical. So we ensure that our programs and initiatives are opening the sector to full participation by all, including women and non-binary individuals, racialized persons, displaced workers and youth.

We draw strength from our broad range of partners, bringing together private sector firms, public sector and not-for-profit organizations, and academic institutions to advance Canadian leadership in cybersecurity.

Finally, we believe that cybersecurity is a force for good, fundamental to healthy democracies and thriving societies.

Where many see only threats, we see opportunities for innovation and empowerment for all citizens of a digitally native global community.

In years to come, Catalyst will continue to pursue these goals, tackling the new cybersecurity challenges that are emerging with technologies like AI and Quantum computing.

Without the generosity of our founding partners our work would not be possible. Thank-you to the City of Brampton, Rogers, the Government of Canada and RBC for your critical support and guidance.

And thanks too to our Catalyst community, which now numbers over 10,000 active members, who are helping us build a world-class cybersecurity sector in Canada.

As I said before, we're only just getting started. We at the Catalyst remain focused on creating a cyber-resilient future for all Canadians.

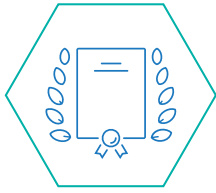
Thank you for being part of our incredible journey so far, and here's to the next five years of groundbreaking training, innovation and collaboration that will shape the future of cybersecurity.

Charles Finlay

Founding Executive Director,
Rogers Cybersecure Catalyst



OUR IMPACT AT A GLANCE



More than 7,000

people have directly benefited from the Catalyst's groundbreaking programs.

They have acquired new cyber skills, built thriving cybersecurity careers, advanced new ventures focused on digital security, and contributed to a more cybersecure Canada.



Over 500

businesses have been fueled by the Catalyst.

They have hired world-class talent from our training programs, strengthened their cybersecurity posture through Catalyst Cyber Range workshops, and scaled-up their operations in the Catalyst Cyber Accelerator.



Over 10,000

cybersecurity experts, mentors, thought leaders, entrepreneurs, and program participants, alumni and partners make up the Catalyst community.



Over 800

jobs have been created or filled in the cybersecurity sector through Catalyst programming.

From junior, to technical and executive leadership roles, Catalyst programming has helped close skill and talent gaps, bolstering a thriving Canadian cybersecurity sector.



More than 1,000

women, girls and non-binary individuals have been empowered.

The Catalyst is focused on building a diverse and inclusive future for cybersecurity – and cyber leadership – in Canada by opening up the sector to those who have traditionally been underrepresented in it.



“One of Toronto Metropolitan University’s premier centres of excellence, Rogers Cybersecure Catalyst is actively mapping out the future of cyber. Through its cutting-edge initiatives and strategic partnerships, and by cultivating the largest and most influential network of cybersecurity professionals and experts in the country, the Catalyst is making a profound impact on the ever-evolving landscape of digital technology.”

Dr. Mohamed Lachemi

President and Vice-Chancellor,
Toronto Metropolitan University



Our Home

With its diverse talent pool and strategic location in the heart of Ontario, we’re proud to call the City of Brampton, and specifically the Brampton Innovation District, home.

As the fastest growing city in Canada, and unique in its youthful population, scale of diversity (with 250 ethnicities represented) and its pace of growth (expanding at an annual 10.6%), Brampton is a pivotal epicenter for innovation and collaboration.



CATALYST MILESTONES

August 2018

Launch of Rogers Cybersecure Catalyst

June 2019

Announcement of \$30 million combined investment in the Catalyst from the City of Brampton Rogers, the Government of Canada, and RBC

January 2020

Launch of Catalyst Cyber Accelerator – Canada's only cybersecurity-focused commercial accelerator

February 2020

Launch of Accelerated Cybersecurity Training Program, which empowered people from diverse backgrounds to launch new careers in cybersecurity

July 2020

Launch of Cybersecure Policy Exchange, powered by RBC, helping to shape national cybersecurity policy

July 2020

Launch of public education programs and cybersecurity resources for children and youth, educators, and parents

February 2021

Launch of Catalyst Cyber Range, a state-of-the-art platform used to practice, train and assess technical cyber response skills

March 2021

Launch of SimplySecure, a dedicated suite of resources to help SMBs protect themselves and their customers

March 2022

Launch of Mastercard Emerging Leaders Cyber Initiative, a first-of-its-kind leadership program for women and non-binary individuals looking to shape the future of Canadian cybersecurity

April 2022

Launch of Catalyst Fellowship Program, which is championing original cybersecurity research and industry engagement

September 2022

Launch of CyberStart Canada aimed at empowering youth to explore cybersecurity in a fun, safe and collaborative environment

February 2023

Launch of cybersecurity training programs for law enforcement – dedicated to helping police forces and law enforcement agencies build world-leading cyber crime units

February 2023

Launch of Ukraine Cybersecurity Reskilling Initiative, providing cybersecurity training to Ukrainians displaced from previous employment by the war

February 2023

Launch of CLIC – Certificates for Leadership in Cybersecurity, a world-class cybersecurity training & dual-certification program for those seeking to enter the cybersecurity profession





March 2023

Launch of cybersecurity programs for municipalities, focusing on foundational cybersecurity training for professionals working in municipal agencies

May 2023

Launch of Catalyst Veterans Cyber Range Bootcamp, offering practical cybersecurity training to Canadian Armed Forces veterans and their family members

August 2023

Launch of Ontario Cybersecurity Excellence Initiative, a \$10 million program designed to fuel cybersecurity excellence and innovation in Ontario

October 2023

Launch of Certificate in Cybersecurity and the Law, a collaboration with Lincoln Alexander School of Law at Toronto Metropolitan University, helping senior leaders and lawyers navigate the legal complexities of cybersecurity

November 2023

Launch of Cyber Integration for Businesses initiative that ensures companies working in Ontario's key sectors can adopt and integrate cybersecurity technologies into their products and processes

2024

We look forward to the launch of:

- the Advanced Cyber Education (ACE) specialization training program for intermediate to advanced cybersecurity professionals
- the RBC Fintech Security Incubator for start-ups building cybersecurity solutions for the financial services sector
- the Cyber Challenge Incubator empowering technology startups to solve cybersecurity-related challenges in Ontario's key sectors



Workforce Training

Through our pioneering workforce and individual training programs, we're creating a robust cybersecurity talent pool that is fit for the future, and building diversity of culture, gender and ability into the next-generation cybersecurity workforce.



Over 900
new cybersecurity
professionals trained
since 2020

85% of students and
alumni self-identify as a
visible minority

54% of graduates identify
as a woman or a non-binary
individual



Over 1,000
students and young people
engaged directly with
cybersecurity programming

The majority of them are
girls, non-binary individuals,
and youth from backgrounds
that are traditionally
underrepresented in STEM



ALUMNI SPOTLIGHT Monica Nguyen

A graduate of ACTP, Monica previously worked in the hospitality industry as a chef. She chose to transition into cybersecurity because she wanted to work in an industry that utilized her critical thinking skills and challenged her to solve complex problems.

Thanks to the rigorous training she received at the Catalyst, combined with her unique skill set honed in the fast-paced, pressurized environment of commercial kitchens, she now works as a Senior Security Specialist at Rogers Communications.

PROGRAM HIGHLIGHTS

Accelerated Cybersecurity Training Program (ACTP)

Delivered in partnership with SANS Institute, and with support from the Government of Canada, Rogers Communications and RBC, ACTP was designed to help people from diverse personal and professional backgrounds launch meaningful careers in cybersecurity.

CLIC (Certifications for Leadership in Cybersecurity)

CLIC is a world-class cybersecurity training and dual-certification program designed to give learners the skills they need to launch a career in cybersecurity or elevate their career with cybersecurity skills.

CyberStart Canada

With support from Public Safety Canada and RBC, CyberStart empowers high school-aged young people to develop critical digital literacy skills and access career resources to spark their interest in cybersecurity as a future profession.

Cyber Talent Solutions

We work closely with over 160 of the largest employers in Canada, strengthening their existing recruitment capabilities through direct access to a high-caliber pool of employment-ready Catalyst graduates.

Ukraine Cybersecurity Reskilling Initiative

Working in collaboration with Ukraine-based Information Systems Security Partners (ISSP) and the Ministry of Digital Transformation of the Government of Ukraine, we're proud to provide cybersecurity training to 100 Ukrainians who have been displaced from previous employment by the war.

Catalyst Veterans Cyber Range Bootcamp

In partnership with Coding for Veterans, we deliver practical cybersecurity training to Canadian Armed Forces veterans and their family members, empowering them to pursue a meaningful career in the rapidly growing cybersecurity sector.



Corporate Training and Cyber Range

Through best-in-class corporate training offerings for executive teams, IT departments and employees at all levels of an organization, we're empowering Canadian companies and public entities across various sectors to protect themselves and their stakeholders.



Over 1,500 employees
from over 140 organizations trained



Over 250 SMEs
have accessed our cybersecurity
resources and playbooks



INSTRUCTOR SPOTLIGHT Melissa Hathaway

Program advisor and instructor for the Mastercard Emerging Leaders Cyber Initiative at the Catalyst, Melissa is a globally recognized thought leader in the fields of cybersecurity and digital risk management. She served in two U.S. presidential administrations, spearheading the Cyberspace Policy Review for President Barack Obama and leading the Comprehensive National Cybersecurity Initiative for President George W. Bush.

After her government service, she established Hathaway Global Strategies, LLC, bringing a multi-disciplinary and multi-institutional perspective to strategic consulting and strategy formulation for public and private sector clients.



PROGRAM HIGHLIGHTS

Catalyst Corporate Training

The Catalyst has delivered immersive, hands-on cybersecurity training sessions to organizations and government entities of all sizes, including tailored workshops, interactive tabletop exercises and immersive technical scenarios.

Catalyst Cyber Range

The Catalyst Cyber Range, powered by RHEA Group, is our state-of-the-art, interactive cybersecurity training and testing platform that provides ultra-realistic experiential learning opportunities featuring an array of real-world cyberattack scenarios.

Mastercard Emerging Leaders Cyber Initiative (ELCI)

Through the generous support of Mastercard, ELCI is a first-of-its-kind program for women and non-binary corporate leaders who seek to advance into executive-level positions in cybersecurity or related fields.

SimplySecure

SimplySecure offers high-quality resources and training to help small and medium-sized businesses grow a culture of cybersecurity within their organization.

Cyber Training for Municipalities

In the face of a growing number of cyber attacks on municipalities and local governments, the Catalyst's cybersecurity training for municipal leaders and staff addresses the unique challenges they face.

Ontario Cybersecurity Excellence Initiative

Delivered in partnership with Canadian Cyber Threat Exchange, and with funding from the Government of Ontario and Rogers Communications, this first-of-its-kind, \$10 million program will drive competitiveness and cyber resilience in companies working in six key Ontario sectors (Beginning in 2024).

Cybersecurity and the Law

Developed and delivered in partnership with Toronto Metropolitan's Lincoln Alexander Law School, this certificate program provides senior leaders and in-house counsel with the knowledge and skills they need to navigate the legal complexities of cybersecurity.

Cyber Integration for Businesses

In partnership with Canadian Cyber Threat Exchange, the Catalyst is empowering organizations in key sectors in Ontario to thrive through the adoption and integration of cybersecurity technologies.



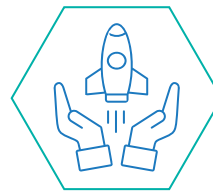
Innovation

Through the most comprehensive package of support and benefits for cyber entrepreneurs, innovators and start-ups, we're helping to spur breakthrough cyber innovations and establish Canada as a global leader in cybersecurity.

PROGRAM HIGHLIGHT

Catalyst Cyber Accelerator

Canada's first and foremost business accelerator, the Catalyst Cyber Accelerator drove cyber innovation, commercialization and adoption initiatives by supporting cyber entrepreneurs and start-ups from across Canada on their journey to becoming global market leaders.



60 start-ups
and scale-ups supported,
who have collectively:

- Raised **more than \$100 million** in funding
- Created **over 350** new cybersecurity jobs
- Awarded **over 40** cybersecurity-related patents



ALUMNI SPOTLIGHT Beauceron Security

An alumni of the Catalyst Cyber Accelerator, Beauceron Security is a Canadian SaaS firm focusing on the human factors of cybersecurity. Founder, David Shipley, said he joined the accelerator program so he could gain access to the phenomenal resources, mentors and subject-matter experts, and network of cybersecurity investors offered by the Catalyst.

During their time in the program, Beauceron raised \$3.5m in non-dilutive funds. Today, Beauceron serves hundreds of customers in Canada, the United States and Europe, including a number of Fortune 1000 companies.

Cybersecurity Policy, Research and Public Education

Through the development of future-focused public policy, cutting-edge research and accessible cybersecurity resources, we're empowering all sectors of society and equipping the next generation of cyber leaders.

PROGRAM HIGHLIGHTS

Catalyst Fellowship Program

Selected from academics at Toronto Metropolitan University and industry professionals, Catalyst Fellows undertake original research, and engage industry and the public in new cybersecurity concepts.



Over 20
major policy reports, briefs,
white papers, conference papers
and academic articles published

Cybersecure Policy Exchange (CPX)

Our major policy development initiative, powered by RBC, worked to advance original and effective public policy to protect the cybersecurity and digital privacy of Canadians.

Publications and Educational Resources

We regularly publish reports, guides and toolkits to increase awareness of cybersecurity. These free resources are designed for audiences including children and youth, educators, and parents.



SPOTLIGHT

Catalyst Thought Leadership

Our top seven most-read published commentaries

1 **Canada needs rules for internet-connected devices**

Catalyst Founding Executive Director, Charles Finlay, and CEO of Beauceron Security and Catalyst Cyber Accelerator alum, David Shipley, writing in *The Globe and Mail*

2 **Quantum technology will be here soon, but are we ready for it?**

Catalyst Senior Cybersecurity Advisory, Randy Purse, writing in the *Ottawa Citizen*

3 **Regulate artificial intelligence – before it's too late**

Catalyst Industry Fellow, Dr. Jeff Schwartzenruber, writing in the *National Post*

4 **Tech Sector Chaos Risks Serious Cyber Attacks**

Catalyst Founding Executive Director, Charles Finlay, writing in *Newsweek*

5 **Autonomous Fleets Are Almost Here. Are They Safe From Cyberattacks?**

Catalyst Industry Fellow, AJ Khan, writing in *Newsweek*

6 **The Internet of Things exposes us all to the biggest cyber threats**

Catalyst Research Fellow, Dr.-Ing Monika Freunek, writing in the *Toronto Star*

7 **Quebec's new Law 25 is the toughest privacy legislation in Canada. Here's why it matters**

René-Sylvain Bédard, CEO of Indominus, and Will Christodoulou, co-founder of Cyder, both Catalyst Cyber Accelerator companies, writing in the *Toronto Star*

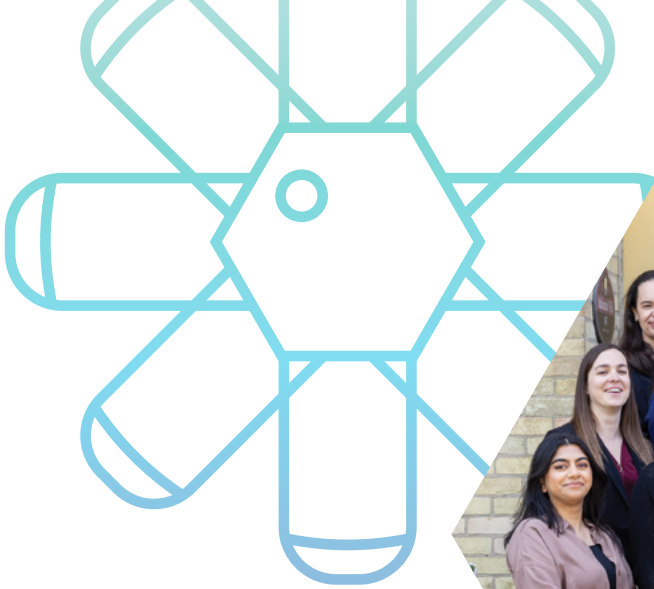
For all press mentions, news releases, interactive media and opinion pieces, visit: cybersecurecatalyst.ca/news-media

"The Catalyst is training the next generation of cybersecurity leaders: ones who complement diversity in thinking with cybersecurity fundamentals and a strong passion and dedication to defend against cyber threats."

Sundeep Sandhu

VP Cyber Security and CISO, Rogers Bank,
Rogers Communications





**Five years ago,
we embarked on an
extraordinary journey to
foster a world-class
cybersecurity sector in Canada.**

Through our groundbreaking individual and corporate training programs, vital research, policy and public education initiatives, and strategic partnerships that support innovation and collaboration in the sector, we've accelerated Canada's cyber ecosystem and catalyzed a diverse, highly skilled workforce to support it.

And we're just getting started.

Our future will be led by a relentless pursuit of excellence and impact — driving further advancements in the cybersecurity sector and positioning Canada as a global leader on the cyber stage. We'll empower even more individuals and organizations to seize the opportunities and tackle the challenges of cybersecurity, and our team will continue to play a pivotal role in creating a cyber-resilient future for Canada and beyond.



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