

Impact Report

2022-2023



Land Acknowledgement

Humber College is located within the traditional and treaty lands of the Mississaugas of the Credit. Known as Adoobiigok, the “Place of the Alders” in Michi Saagiig language, the region is uniquely situated along the Humber River Watershed, which historically provided an integral connection for Anishinaabe, Haudenosaunee, and Wendat peoples between the Ontario Lakeshore and the Lake Simcoe/Georgian Bay regions. Now home to people of numerous nations, Adoobiigok continues to provide a vital source of interconnection for all.



Table of Contents

- Introduction.....4**
 - Message from Gina.....6
 - Executive Summary.....8
- The Room to Succeed for Students, Faculty and Partners.....12**
 - Students.....14
 - Faculty members24
 - Industry and Community Partners.....28
- Success Stories34**
 - Centre for Social Innovation: Partnership with Othram36
 - Longo Centre for Entrepreneurship: BMO Launch Me38
 - Centre for Innovation in Health and Wellness: Health Innovation Challenge40
 - Centre for Creative Business Innovation: TinyTO Internship42
 - Barrett Centre for Technology Innovation: Kuka Robotics Capstone project.....44
- Our Centres of Innovation48**
 - Centre for Social Innovation.....50
 - Longo Centre for Entrepreneurship.....52
 - Centre for Innovation in Health and Wellness.....56
 - Centre for Creative Business Innovation.....58
 - Barrett Centre for Technology Innovation62
 - Thank you to our partners66



1

Introduction

As a true polytechnic institution, Humber is intrinsically committed to fostering an environment where innovation is not just a possibility but a reality.

A Driving Force of Innovation



A Message from Gina

We are thrilled to present the 2023 Centres of Innovation (COI) Network Impact Report, highlighting the incredible achievements and impact of our COIs.

Since the COI Network started in 2017, it has been a driving force of innovation at Humber, providing students, faculty members, industry and community partners with the resources, expertise, and collaborative opportunities they need to thrive in today's ever-changing landscape.

At Humber, we understand the importance of fostering an innovative mindset and equipping our students with the skills and experiences necessary to succeed. The COI Network offers a wide range of benefits to our students, empowering them to make a real impact on campus and in the community. Through collaborations with

industry partners, students can tackle real-world challenges, develop entrepreneurial skills, and contribute to the growth of local enterprises. Hands-on learning opportunities, such as funded research projects and work-integrated learning experiences, allow students to apply their knowledge in practical settings and gain valuable experience.

Our dedicated faculty members are the backbone of the COI Network, and we recognize their commitment to providing enriching experiences for our students. The COI Network gives faculty members the opportunity to become innovators in their fields, allowing them to help develop new programs, integrate emerging technologies into their courses, and engage in real projects and research that address industry demands. Our faculty members bridge the

gap between theory and practice through industry and community partnerships and applied research, ensuring our students receive a relevant and forward-thinking education.

Industry and community partners are a critical part of the COI Network. By partnering with us, industry partners can shape the experience of our future workforce through work-integrated learning opportunities, mentorship programs, and customized courses. Partners also gain access to Humber's vast innovation ecosystem, diverse expertise, and our highly sought-after graduates. Together, we can drive transformation within their organizations, address community challenges, and make a positive impact. In our second-ever Impact Report, you will find detailed information about each of our



five COIs: the Centre for Social Innovation, the Longo Centre for Entrepreneurship, the Centre for Innovation in Health and Wellness, the Centre for Creative Business Innovation, and the Barrett Centre for Technology Innovation. Each of them has achieved remarkable milestones in the last year, collaborating with faculty members, students, and partners to create innovative solutions and give everyone the room to succeed. And as a whole, the COI Network has reached a big milestone of its own—all five COIs in the Network are now fully launched.

We are proud of the accomplishments of our students, faculty members, and partners, and we are excited to continue our journey of innovation and collaboration.

Getting the Network up and running was just the beginning. Now we're starting to think about what comes next. More collaboration between COIs. More partners here in Canada and globally. More opportunities to deliver the best possible polytechnic experience that has always defined Humber. That's what you can expect from us in the next few years. We'd love for you to be part of where we go next. Whether you're a student, faculty member, or potential partner, we want your ideas and your perspective as we create the future of innovation at Humber.

Sincerely,
Gina Antonacci, PhD.
Senior Vice-President, Academic
Humber College

Focus on Collaboration



Executive Summary

The COI Network has been a catalyst for innovation since its launch in 2017, providing access to resources, technology, and expertise that drive creative solutions for ever-changing community and industry needs. With a focus on interdisciplinary collaboration, the COIs bring together faculty members, students, industry and community partners to tackle complex, real-world challenges.

Our mission is to give all of them the room to succeed.

The COI Network isn't just a fusion of theory and practice; it's a fusion of ideas, disciplines, and people. As a true polytechnic institution, Humber is intrinsically committed to fostering an environment where innovation is not just a possibility but an everyday reality.

WHAT THE COI NETWORK OFFERS STUDENTS, FACULTY MEMBERS, AND PARTNERS

We offer Humber students the chance to confront contemporary challenges, sparking their entrepreneurial spirit, and driving positive change. We equip them with practical experience through work-integrated learning and industry and community

capstone projects. Humber graduates who get involved with COI projects don't just fit into the evolving economy—they drive it.

Faculty members, too, find themselves enriched. Their work with the COI Network has served as a catalyst for change in their fields, allowing for the integration of emerging technologies into curriculum and engaging in projects that have an impact in the world beyond the classroom. The result: educators who thrive in innovative spaces, bridging the theory-practice gap and shaping future industry leaders.

Our industry and community partners are the final, critical piece in our Network. They gain access to cutting-edge technologies, expertise, and a pool of talent eager to transform the world through their innovative lens.

FULLY LAUNCHED

The end of 2022 saw the launch of our final COI, the Centre for Social Innovation (CSI). Now that each of our five Centres is fully operational, the COI Network offers opportunities for engagement for all community and industry partners, faculty members, staff and students.

Each COI has a unique area of focus, drawing on the expertise and resources Humber has to offer, which gives all who access the Network the opportunity to flourish.

The Centre for Social Innovation (CSI) is dedicated to driving social innovation through faculty engagement, interdisciplinary collaboration, and ongoing applied research projects. In 2022, the CSI amplified faculty research and identified innovative approaches within the classroom. They

launched a major partnership with Othram Inc., a leading forensic DNA lab. The CSI will work with Othram to measure social and criminal justice impact, build tools to support law enforcement and develop programs to educate future forensic professionals. The CSI also recently finalized its key areas of thematic focus of social impact, reconciliation, and social determination

which will shape its identity and areas of inquiry as the Centre continues to grow. **The Longo Centre for Entrepreneurship (Longo Cfe)** empowers individuals to thrive in the entrepreneurial landscape by providing programs and resources. In 2022, the Longo Cfe put on several programs and initiatives, including the Innovate and Create Entrepreneurship (ICE) Program, engaging





participants in a 12-week journey to bring their entrepreneurial ideas to life. This year the ICE program was managed by Damian McIntyre—the Longo CfE's new Leader In Residence. The Longo CfE also organized the BMO Launch Me program, where students and alumni pitched their business ideas for a chance to win funding. Additionally, the Longo CfE supported women entrepreneurs through programs like the Start My Business Boot Camp, offering guidance, resources, and connections for success. They also expanded the Longo 'Be Your Own Boss' program, which aims to foster an entrepreneurial mindset among students and alumni, providing them with the tools,

support, and mentorship to start and sustain their own businesses.

The Centre for Innovation in Health and Wellness (CIHW) fosters collaboration between health and entrepreneurship disciplines to develop innovative solutions. In 2022, the CIHW initiated the Health Innovation Challenge, bringing together students from various academic Faculties to address the issue of Type 2 Diabetes. The CIHW also engaged in collaborative projects such as Humber Healthy Campus, a student-led initiative focused on mental and physical well-being.



The Centre for Creative Business Innovation (CCBI) promotes research creation and critical thinking across disciplines, supporting artists and creators in their pursuit of digital media and arts research. In 2022, the CCBI offered several opportunities for participation, including design jams, workshops, and collaborations. Highlights included the Graphic Medicine Fellowship, which raised awareness about snakebites as a neglected tropical disease, and the Indigenous Transmedia Fellowship, which supported Indigenous students in exploring intergenerational impacts through artistic film projects. The CCBI also continued its partnership with the City of Toronto on the TinyTO Internship.

The Barrett Centre for Technology Innovation (Barrett CTI) focuses on technological advancements and applied research. In 2022, the Barrett CTI continued its commitment to solving industry challenges through in-person workshops, courses, and micro-credentials, expanding the knowledge and skills of Humber employees and local SMEs. It also continues to collaborate with Humber's Community Outreach and Workforce Development office for STEAM Workshops, reaching thousands of middle and high school students. The Barrett CTI provided work-integrated learning opportunities to Humber students, allowing them to gain real-world experience.

THE NETWORK ADVANTAGE

Our COIs recognize the value of collaboration and work together on various projects, combining their expertise and resources to drive innovation. This is where the real magic of the COI Network lies—the synergy among each COI and their collaborative spirit.

When you engage with the Network, you gain access to the breadth of Humber's innovation ecosystem. Last year's Health Innovation Challenge was a triumphant collaboration between the CIHW, Longo CfE, and Barrett CTI, demonstrating the power of the COI Network.

2

The Room to Succeed for Students, Faculty and Partners

The COI Network provides the foundation to thrive in innovative spaces and bridge the theory-practice gap to help shape future industry leaders.

Sparking Students Entrepreneurial Spirit



“The nice thing about doing this virtually is that we could involve students that were not necessarily all in the same city. That was possible...then this idea of, ‘Okay, we’re putting all this work into this and really to test something out like this, to see what its impact is going to be so we can tweak it as we develop it?’”
- Anonymous Fellow

WHAT HUMBER'S COI NETWORK OFFERS STUDENTS

Preparing for a successful career in today's evolving workforce can be challenging. Humber's COI Network understands the importance of equipping students with the skills and experiences they need to thrive in this dynamic environment. We offer a range of opportunities and resources designed to empower students to make an impact on campus, learn by doing, and build their resume and network.

We believe in creating safe spaces for students to experiment, make mistakes, and leverage this learning into future endeavors. The COI Network strives to foster a supportive and inclusive learning environment that encourages students to take risks and develop the experience and flexibility they need to succeed in their future careers.

Make an impact on campus: The COI Network provides opportunities for students to make Humber an even better place to learn and grow by engaging in activities that have direct and immediate impact on campus. A great example of this last year was the CIHW's Humber Healthy Campus programs, in which students led three initiatives to promote better mental health for their peers. As a part of this, some students even conducted wellness coaching sessions for other students and faculty across Humber.

Learn by doing: We believe in the power of experiential learning. The COI Network emphasizes innovation and entrepreneurship, empowering students with transferable skills that can be applied in any industry. Students can engage in funded research projects, work-integrated learning, and other initiatives to apply their knowledge, solve real-world problems and gain valuable experience.

Build your resume and grow your network: Through work-integrated learning experiences, innovative research projects, finding mentors or attending unique events, students have a lot to gain professionally with the COI Network. Collaborations with industry professionals and partners make these opportunities possible. We have also established a service to build partnerships with small businesses, offering students the chance to work as consultants, providing services such as marketing, website design, public relations, and financial advice. These hands-on experiences allow students to apply their knowledge in practical settings while contributing to the growth of local enterprises.

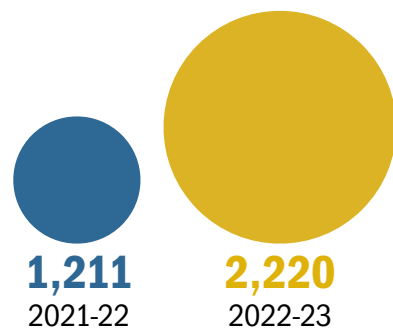
Students Rise to the Challenge



"It was a great experience working with fellow creatives toward a common creative goal. While we all were individual creatives, we were tied together by a common philosophy provided by the museum and our creative producer. Which led us to explore our individual creativity ultimately reaching the same destination by different paths. Which to me were the most fun and unique experience as a fellow."

- Anonymous ICMF fellow

of current students participating in COI projects/activities



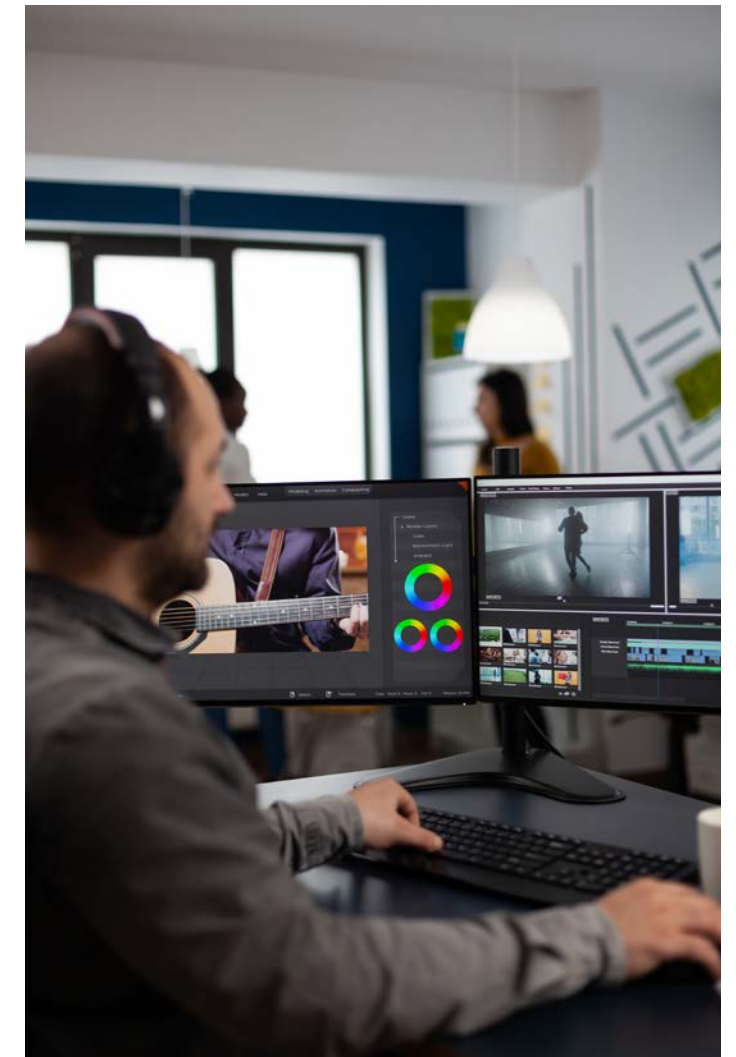
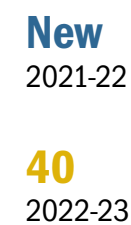
"The Health Innovation Challenge enabled me to work with a diverse set of backgrounds, developing meaningful solutions to prevent and manage Diabetes. I am incredibly grateful for the opportunity and experience I gained in entrepreneurship, teamwork and problem-solving and am excited for what is to come."

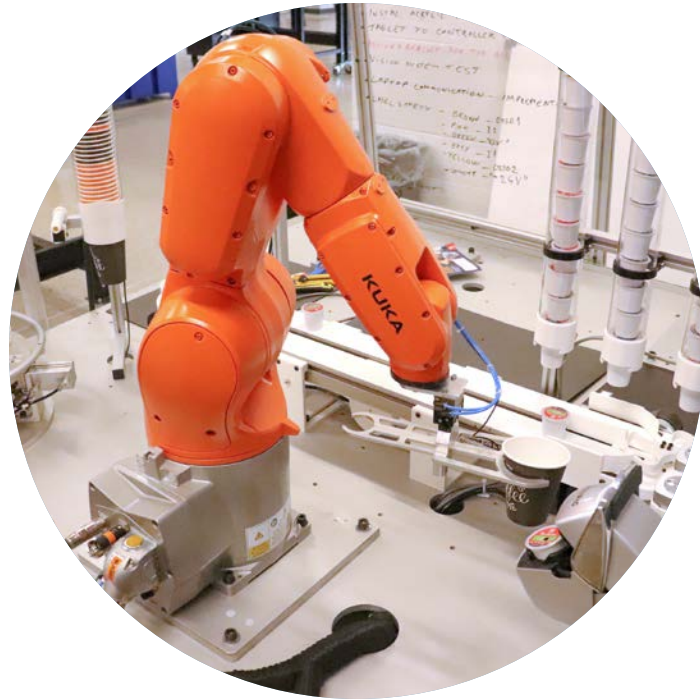
- Chantay T, CIHW Health Innovation Challenge Participant

"How often do you get the opportunity to work on something you love, with full creative freedom, and not just as a volunteer?...This might sound like a lot, but when you're working in a positive environment, with full creative freedom and financial support, alongside fellows who are passionate about music and film just like you; I say there's no better way to spend your summer."

- Anonymous Fellow

of applied research projects





“This was a huge opportunity to be challenged to solve real-world problems with creative solutions that spanned across many disciplines. More opportunities for cross-disciplinary work and initiatives help students seeking to be professionals in their field connect and adapt to sectors in the real world where their work could be of great value. These types of initiatives also inform the community and culture of gaps that exist in accessibility, diversity, and representation.”

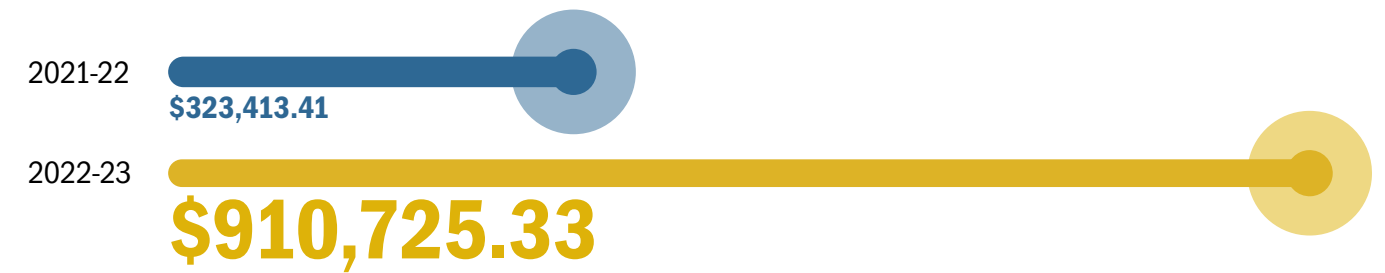
- Anonymous Fellow

“There really is no experience quite like working on your first-ever industrial project. Working with SICK Sensor Intelligence in creating the machine vision and auto Id demo cell was a fantastic opportunity. From managing the team that was working on the project and designing the cell, to working with the industrial partners from SICK, to finally building the finished product. I was able to learn so much within the 8 months of this project that I probably wouldn’t have been able to learn within the first few years of my career.”

- Hassan Ismail, SICK Sensor Automated Cells - Machine Vision and Auto ID



Funding received for student-led businesses and programs (\$\$)

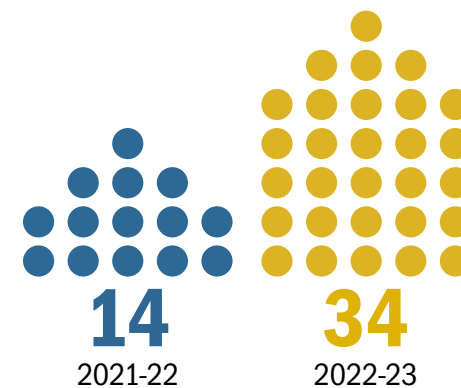


“Our Capstone project in Electromechanical Engineering Technology program at Humber College, in partnership with SICK Sensor Intelligence, was an invaluable opportunity to apply the theoretical concepts we learned in a practical, real-world setting. This project has prepared us well for our future careers and given us the confidence to tackle complex challenges in the field.”

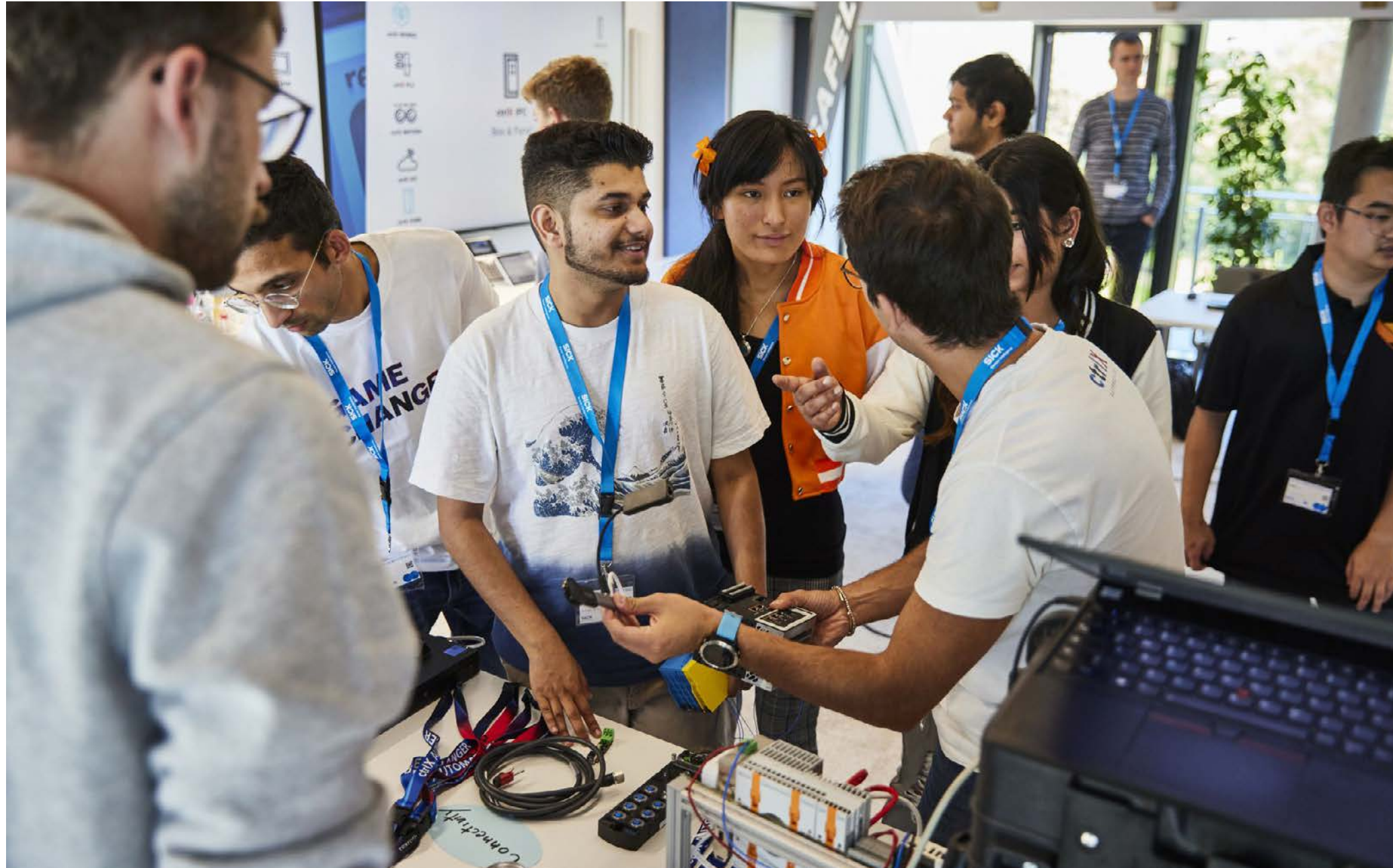
- Vaibhav Shastri, SICK Sensor Automated Cells - Robot Guidance System



of businesses launched



The Positive Impact of Student Engagement

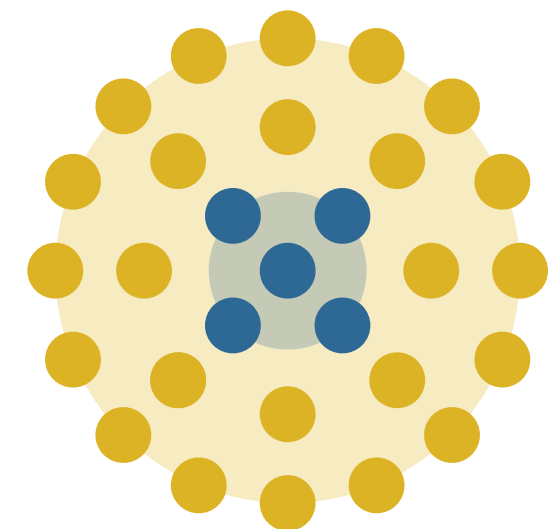


Student-Focused	2021-22	2022-23
Funding received for student-led businesses and programs (\$\$)	\$323,413.41	\$910,725.33
# of businesses launched (likely from Longo CfE or CCBI)	14	30
# of middle and high school students impacted by STEM/STEAM outreach programs (Barrett CTI)	3,600	7,956
# of current students participating in COI projects/activities	1,211	2,220
# of Experiential Learning/WIL opportunities engaged through the COI	New	331
# of alumni engaged in COI projects/activities	76	136
# of applied research projects	New	40

of middle and high school students impacted by STEM/STEAM outreach programs

3,600
2021-22

7,956
2022-23





Nina Staer Nathan, winner in the Women Innovators category.



Harrison Cowden, runner-up in the Ground Breakers category.



Student spotlight: Who wants to be an entrepreneur?

NINA STAER NATHAN AND HARRISON COWDEN

Humber's Longo Centre for Entrepreneurship (Longo CfE) proudly showcased its most innovative students on March 23, 2023, awarding a total of \$130,000 in cash prizes to the finalists of the BMO Launch Me competition.

Among the standout performers were Nina Staer Nathan, winner in the Women Innovators category, and Harrison Cowden, runner-up in the Ground Breakers category.

Nina is an alumna of the International Development (ID) graduate certificate program and showcased her commitment to social impact and entrepreneurship with her venture, Sunflower Communications. She and her team worked with non-profits and social enterprises and have recently expanded their clientele to include organizations in Canada and the United States.

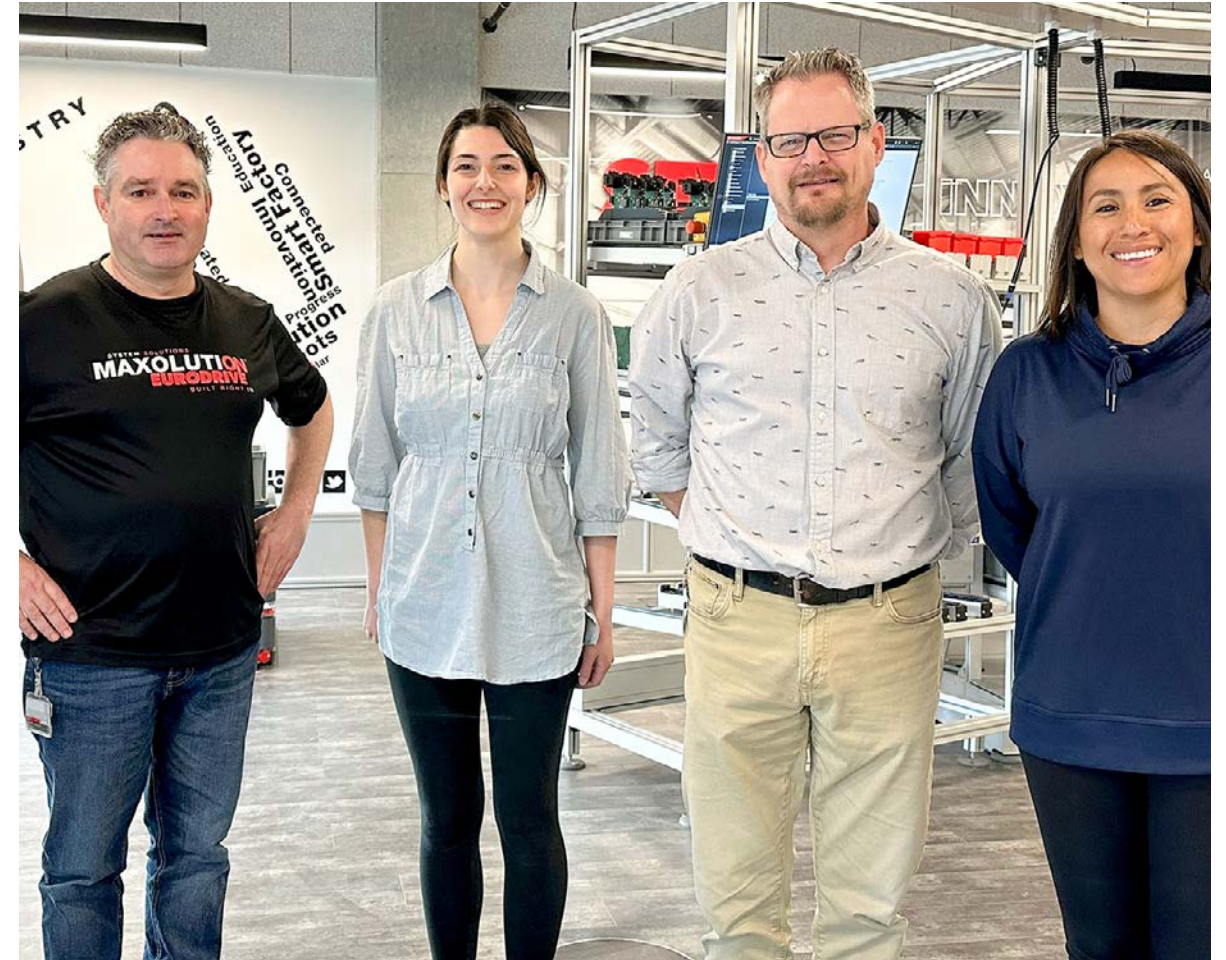
As a current student, Harrison Cowden, is in their final year of the Hospitality and Tourism Operations Management program and secured second place in the Ground Breakers category. As part of the award, Harrison received \$10,000 in funding to propel his future ambitions. His achievement underlines his skills in public speaking, networking, and strategic thinking—qualities essential for success in the hospitality and tourism industry.

The BMO Launch Me Program aims to help students and recent alumni prepare for entrepreneurial success. Through a series of skill-building workshops, participants develop their business ideas and plans, increasing their chances of success in the competition.

Both Nina and Harrison's success are great examples of how the Longo CfE gives students the training and opportunity to succeed as entrepreneurs.



Taking Faculty Members Beyond the Classroom



WHAT HUMBER'S COI NETWORK OFFERS FACULTY MEMBERS

Humber faculty members have a deep understanding of the challenges posed by an uncertain economy and workforce, and they are dedicated to preparing students for successful careers. They recognize the importance of fostering an innovative mindset and equipping students with the skills to learn and adapt to the ever-evolving challenges of today's workplaces. When faculty members require additional resources, or specific expertise to deliver

comprehensive learning experiences for their students, Humber's COI Network is there.

Become an innovator: Faculty members can leverage their existing knowledge and expertise to become innovators in their fields. For example, the COI Network actively contributes to the development of new programs, such as degrees and creating micro-credentials and training courses that align with industry demands while positioning our students as sought-after graduates. Faculty can work with students, community and industry partners to create new corporate training courses that

integrate emerging technologies, cutting-edge research, and industry practices. For example, last year, the Barrett CTI worked with faculty members and Festo to create a micro-credential program in exploring mechatronics, which focuses on mechanical, electrical, design, programming, robotics, and automation skills.

Make an impact beyond the classroom: The COI Network offers faculty members many ways to make an impact beyond the classroom. Through applied research projects, faculty members can explore real-world challenges, develop practical

solutions, and make a substantive contribution to their field of expertise. The COI Network also provides mentorship opportunities, allowing faculty members to guide and support students in their academic and professional growth. The COI Network encourages faculty members to leverage their industry connections and bring real-world experiences into the classroom.

Support for your students: The COI Network ensures that faculty members have the necessary support and resources to enhance their teaching and provide valuable experiences for their students.

Faculty members can access resources from industry partners to enrich their classes. For example, the Longo CfE was able to connect a Humber instructor with a financial expert from BMO to co-facilitate four sessions of their finance course, providing students with real-world insights. The COI Network also promotes the integration of work-integrated and experiential learning into curriculum. These experiences bridge the gap between theory and practice, preparing students for successful transitions into their chosen careers.

Faculty Members Embrace Learning Approach

“It was a pleasure working with CIHW and be a part of the innovative collaboration partnerships. Tackling complex health care issues involves a team beyond a singular discipline but requires new innovative approaches across the communities of practice. Witnessing the energy and creative work of the students was absolutely refreshing.”

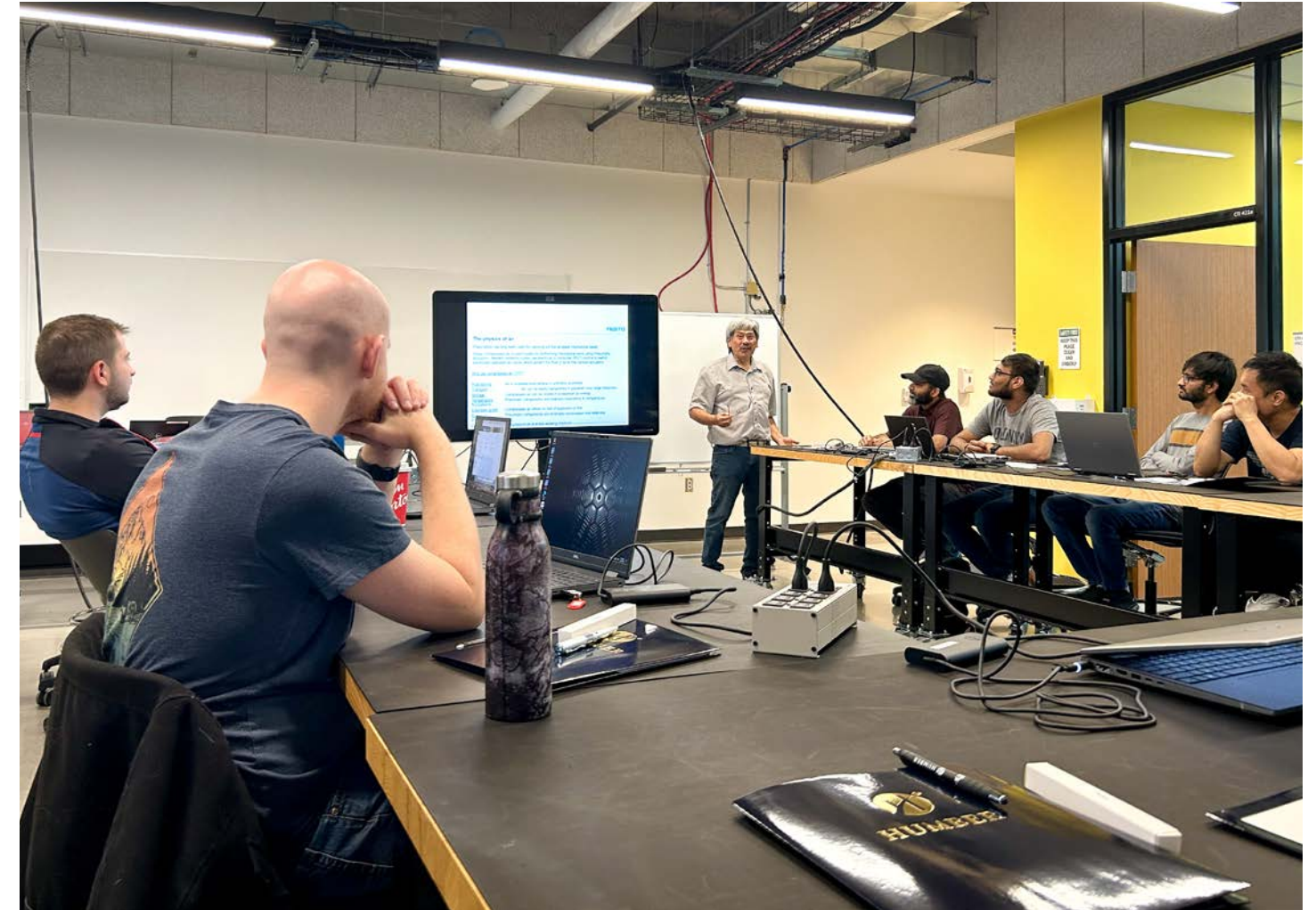
– N.F. (Quote 1 - CIHW)



“Working with the Barrett CTI has been exceptionally beneficial for our students in the Electromechanical program. The building and available technology are first-rate but it’s the people that really stand out. They have been there at every opportunity to support and assist our students in their learning endeavors.”

Tyler Clapperton, Professor, Electromechanical Engineering Technology Program

Impact Shows More Faculty Engagement



Faculty-Focused	2021-22	2022-23
# of faculty involved in COI activity	82	664
# of capstone projects (i.e., for course credit)	658	82
# of capstone projects in which partner provided some cash contribution towards project	New	8
Total cash contribution towards capstone projects from industry partners	New	\$440,000.00

Empowering Industry and Community Partners



WHAT HUMBER'S COI NETWORK OFFERS PARTNERS

Whether you are an established company, a startup, or a non-profit organization, Humber's COI Network provides the room for innovation and success. We empower our partners to navigate the challenges of today's economy through innovation and collaboration.

The COI Network also extends its offerings to community members, allowing them to attend workshops, access resources, and benefit from our expertise. We plan to involve partners in utilizing the shared spaces and resources provided by the Network, fostering collaboration and innovation within the broader community.

Let innovation transform your organization:

We offer partners the opportunity to leverage cutting-edge technologies, explore new ways of working, and adapt their operations to thrive in a changing landscape. By collaborating with the COI Network, partners gain access to all five COIs, along with the wealth of knowledge, resources, and expertise available across Humber's six academic faculties, three campuses, and diverse student body. We work closely with partners to engage the optimal group of students, faculty members, resources, and expertise tailored to meet their specific needs.

Shape your future workforce and train your teams:

Partnering with the COI Network allows organizations to shape the experience of their future workforce. By engaging with Humber's talented students within the COI Network, partners can provide work-integrated learning opportunities, mentorship programs, internships, and employment opportunities. Through these interactions, partners contribute to the development of students' skills, ensuring that tomorrow's employees possess industry leading knowledge and abilities. Additionally, partners have a front-row seat to Humber's sought-after pipeline of student talent and can connect with the next generation of innovators.

who bring valuable resources, knowledge, and passion to problem-solving initiatives. By participating in these projects, industry partners can engage in social corporate responsibility and fund initiatives that align with their organizational goals.

HUMBER'S INNOVATION ECOSYSTEM

Partnering with the COI Network opens access to the vibrant innovation ecosystem at the heart of Canada's largest polytechnic institution. With diverse expertise, cutting-edge facilities, and a broad spectrum of programs, we offer partners an unparalleled platform for collaboration and growth.

In addition to our five COIs, our COI Network draws on Humber's six academic Faculties, three campuses, and a student body of over 86,000 learners from more than 130 countries. We carefully tailor our approach for each of our partners, finding the right combination of students, faculty members, and resources to align with each partners' unique needs and objectives.

Partners within the COI Network are afforded the privilege of collaborating with Humber's exceptional faculty members. With their deep industry experience, academic expertise, and unwavering commitment to student success, our faculty members bring value to each and every one of our partners.

To keep partners at the forefront of industry trends, we offer custom-made courses, workshops and micro-credentials designed to retrain and upskill teams. With over 220 programs offered, faculty members at Humber have extensive

knowledge and expertise. We collaborate with Humber's Continuous Professional Learning department to create bespoke training programs for each partner's unique business needs.

Our commitment to polytechnic education and innovation is reflected in Humber's impressive rankings. Recognized as a top Canadian research college, we rank third for paid student researchers and fifth for research partnerships according to Research Infosource Inc.

Financial constraints needn't limit possibilities. Our Office of Research and Innovation (ORI) plays a pivotal role in aiding industry and community partners in securing funding. The ORI facilitates applied research projects, providing partners with an opportunity to work closely with faculty members and students to craft innovative solutions to real-world problems.

An important part of this ecosystem is the Centre for Innovative Learning (CIL). The CIL is dedicated to enhancing teaching innovation and learning, serving as a hub for inspiration, conversation, and mobilization of evidence-informed teaching pedagogy and practices. They support Humber's commitment to teaching excellence, digital learning, and flexible learning.



Graduate spotlight: Stories worth telling

SAGE PETAHTEGOOSE AND THE INDIGENOUS TRANSMEDIA FELLOWSHIP

Recent Humber graduate Sage Petahtegoose has carved a name for herself as a multidisciplinary artist, activist, and leader. In 2022, she returned to mentor five dedicated Fellows of the Indigenous Transmedia Fellowship (ITF), at the CCBI. Sage led them to write, pitch, and collectively build an original film project.

The Indigenous Transmedia Fellowship lifts up the voices of First Nations, Inuit, Métis, and international Indigenous students. Initiated in response to the Truth and Reconciliation Commission's report Call to Action, the Fellowship focuses on the creative practice of Indigenous storytelling and its impact on the process of decolonization.

Under Sage's guidance, the ITF produced "Stolen," a short fiction suspense thriller film that explores the intergenerational impact of the Sixties Scoop. The film portrays the experience of a young Indigenous mother who discovers her son missing from their family home. The chilling story offers audiences an intimate look into a painful chapter of Indigenous history.

"Stolen" was also accepted into the City of Toronto's Nuit Blanche exhibition last year, a city-wide exhibition featuring art projects from various artists. This marked the first time that Humber's Lakeshore Campus hosted a Nuit Blanche event, with around 10,000 visitors flocking to see the installations.



Why our partners chose Humber



“We chose to partner with Humber because we believed that they had the vision, the power, the energy and more importantly, the dream to make an extraordinary impact in education,” said Bob Barrett, CEO, Polytainers Inc. & Co-founder, The Barrett Family Foundation.



“We are thrilled to be working alongside Humber College as we build tools to power the future of forensic DNA testing in Canada and we are particularly excited to incorporate social impact measures into our work,” said David Mittelman, CEO, Othram Inc.

Fast-growing impact for industry and community partners



Partner-Focused	2021-22	2022-23
# of active partners/partnership engaged in projects or activities within the COI	59	123
Total Partner/Industry contributions (\$\$)	\$1,653,000.00	\$2,503,925.33
Total Partner/Industry in-kind contributions (\$\$)	\$879,641.00	\$594,043.00
# of projects involving two or more COIs/Faculties/divisions and a third party	30	47
# of projects with global academic partners	New	45
Government research grants obtained (\$\$)	New	\$430,353.67
# of applied research proposals submitted to any source	New	9

3

Success Stories

Embracing the opportunity to confront contemporary challenges, spark entrepreneurial spirit, and drive positive change

Centre for Social Innovation: Partnership with Othram



BACKGROUND

Humber's Centre for Social Innovation (CSI) has embarked on an exciting partnership with Othram Inc. As the world's first purpose built forensic laboratory for forensic genome sequencing, and other advanced human identification applications, Othram is renowned for its innovative integration of forensics and genetic sequencing.

Their industry leading technologies, and pioneering applications of forensic genealogy have been instrumental in solving cold cases and identifying unidentified human remains at a rate significantly surpassing the national average. A partnership that was solidified in December 2022, Othram Inc. has made Humber and the CSI its educational partner in Canada.

NEW COURSES, NEW COMMUNITY PARTNERS

Social innovation occurs everywhere, and as such one prospective research project with Indigenous communities was brought forward via a research query raised by a Forensic Identification student. The result of this query has been for the CSI to pursue resources to support the student's journey of inquiry with the Indigenous community and the exploration of a possible non-government-led DNA database project.

The CSI-Othram partnership also underscores the vital role that partners can play in helping to identify industry education needs. The collaboration between Othram and the CSI has led to the creation and delivery of a micro-credential in investigative genetic genealogy, which the team from Othram helped to deliver, as well as Humber developing a new four-year degree in forensic science.

The partnership with Othram Inc. has opened up a broad spectrum of potential collaborations. The CSI is engaging community groups, pathology professionals and law enforcement services across the country. The work is focused on better understanding the social impact associated with the resolution of cold cases, many that are over 40-50 years in age. More importantly, this work results in identifying unidentified human remains, having individual's names returned to them and providing some form of resolution to families and communities.

FUTURE GOALS AND BENEFITS

The CSI envisions its work with Othram as a multilayered initiative with outcomes that significantly impact both the academic and community sectors. With Othram's scientific excellence and mission that access to justice is a basic human right and the CSI's commitment to social innovation, the partnership promises to bring game-changing technology to Canada and to measure social impact of case resolution in the Canadian context.

The partnership is set to propel forward many projects relevant to Canadian social issues, foster new collaborations for CSI, enhance academic pathways, provide thesis opportunities for students, and make a significant impact on the community.

With the potential to bring resolution to historical cold cases and decades old unidentified human remains, the CSI-Othram partnership is not only breaking new ground in the field of forensic genome sequencing but is also setting a strong foundation for future innovations in social impact measurement and community engagement.

"It's hard to understate what the impact will be of bringing Othram's technology to Canada because there are so many possibilities that come from it. The additional partnerships we'll be able to facilitate, the ability to measure social impact, expanded resources for families and law enforcement—there's so much work that's possible now."

—Joanna Amirault, Interim Director, Centre for Social Innovation

Longo Centre for Entrepreneurship: BMO Launch Me



“The BMO Launch Me program was outstanding this year. Students attend workshops, write a business plan, go through our pitch workshop then make their pitch to our panel of judges in front of a live audience. And BMO gives us \$130,000—a huge amount of money—which we give to the finalists. But beyond the money, students learn innovation and entrepreneurial skills that they can use to start their own business or anywhere they work.”

--Cheryl Mitchell, Director, Longo Centre for Entrepreneurship



BACKGROUND

Every year, the Longo CFE hosts its BMO Launch Me Competition, a platform designed to help aspiring entrepreneurs develop and pitch their business ideas, with a chance to win part of \$130,000 in funding. The competition offered students and alumni a platform to showcase their business ideas, gain valuable entrepreneurial skills, and the opportunity to receive significant funding to kickstart their ventures.

The competition was split into three streams: the BMO Women Innovators Competition, promoting female entrepreneurs; the BMO Groundbreaker

Competition for current students; and the BMO New Graduate Startup Competition for recent graduates.

LIFTOFF

Students who participate in the BMO Launch Me Competition attend workshops, submit their business ideas, and take part in the live pitch event. This year, Harrison Cowden, a final-year student in the Hospitality and Tourism Operations Management program, showcased his talents and secured both second place in the Ground Breaker category and a substantial funding award of \$10,000 to advance his future goals.

In addition, Nina Staer Nathan, an alumna of the International Development graduate certificate program, placed first in the Women Innovators category. Her venture, Sunflower Communications, is now a thriving business with global reach and a focus on social impact.

Faculty members play a crucial role in the competition by providing mentorship to students during the process. They help with business plan development, provide guidance during the workshop sessions, and give valuable feedback to the participants.

The BMO Launch Me Competition is part of BMO's Zero Barriers to Inclusion Strategy, aiming to create opportunities for diverse

students and new graduates. BMO provided significant financial support to make the competition possible. Their generous donation in 2021 of \$750,000 contributed not only to the Launch Me Competition but also to fostering entrepreneurship and inclusivity in business at Humber.

Centre for Innovation in Health and Wellness: Health Innovation Challenge



“It was fascinating to see young innovators come up with some brilliant ideas to challenge the health behaviours around prevention and management of Type 2 Diabetes. We had students across different programs & faculties come together as teams, which made this challenge so very interesting and valuable for them. The students from the technology program thought very differently about the solutions than the students coming from a health and wellness or social work program. The consistent theme that flowed throughout the challenge was that everyone learned something new from one another, having access to community partners and health experts, further facilitated and expanded the knowledge base for the students on the chronicity of Type 2 Diabetes and the need for finding innovative solutions.

--Dr. Vanita Varma, Director, Centre for Innovation in Health and Wellness

BACKGROUND

The Centre for Innovation in Health and Wellbeing (CIHW) has already made significant strides in promoting health innovation since its launch early last year. This year the CIHW organized its first event—Health Innovation Challenge, a cross-Faculty event that drew attention from both within the institution and the wider community.

The Health Innovation Challenge focused on research, prevention and care related to Type 2 Diabetes, a condition highly prevalent in the regions of Rexdale and Peel. Over several weeks, the event saw students from different programs and academic Faculties working together to design solutions for this health problem.

The event had three main stages: ideation, development, and pitching, offering students a comprehensive entrepreneurship experience. To ensure all participants had a solid understanding of the problem, an informational presentation about Type 2 Diabetes was provided at the outset. The

Teams had five days to work on their ideas and design an innovative solution. The student teams came up with unique and extraordinary solutions ranging from two different apps, a mentoring program, a customized website for a specific population group, and a community toolkit.

INNOVATION AND COLLABORATION IN ACTION

Students from across Humber’s academic Faculties, including engineering, music, social work, accounting, business management, health and wellness, and nutrition participated in the event. The Challenge not only provided students with an opportunity to apply their skills to a real-world problem but also demonstrated the potential for multidisciplinary collaboration in addressing health issues.

Faculty members played a crucial role in encouraging student participation and were integral to the event’s success. One faculty member served as a judge, and many others attended the event, supporting



their students and gaining insight into their innovative approaches to health issues. The positive feedback from faculty was overwhelming, with many expressing interest in participating in next year’s Challenge.

The Challenge was enriched by the involvement of six community partners who showcased their work during the event, adding an extra layer of inspiration and engagement for the students. Notably, the judging panel included representatives from community organizations, including two community health centres and the Novo Nordisk Network for Healthy Populations, providing students with diverse perspectives and expert feedback on their ideas and pitches.

CIHW collaborated with the Longo CfE to facilitate the Challenge, combining the CIHW’s expertise in health with the Longo

CfE’s expertise in running innovation challenges. The challenge was also supported by the Barrett CTI, who hosted the event.

The Health Innovation Challenge was a testament to what can be achieved through a collaborative, multidisciplinary approach. It created a platform where students, faculty members, and community partners could come together to address a pressing health issue through innovation.

Following the success of the event, future iterations are planned to be larger, potentially involving more community partners. By building upon this foundation, CIHW and its collaborators continue to pave the way for innovative health solutions and education, cementing their place as a valuable contributor to health and well-being innovation.

Centre for Creative Business Innovation: TinyTO Internship



BACKGROUND

The TinyTO Internship is a unique initiative brought to life by a collaboration between the CCBI and the City of Toronto. The main objective is to reimagine and revitalize the TinyTO model, a 30-year-old scaled depiction of Toronto that serves as a featured attraction at City Hall. This project aims to take the model beyond its original capabilities and shape it into a dynamic tool that reflects the evolving cityscape of Toronto. The paid internship saw its inception in 2021, with the 2022 iteration carrying forward the successes of the previous year, while also focusing on creating an interactive digital tool using Augmented Reality (AR).

A MODEL THAT CHANGES AS WE CHANGE

Seven Humber design students participated in the 2022 TinyTO internship, working to transform people's understanding and interaction with Toronto. Using data sets from the City of Toronto, they utilized various tools such as physical structures, augmented reality, and projections to convey narratives through the model. The Faculty of Media & Creative Arts and the Faculty of Applied Sciences & Technology played essential roles, providing guidance and support to the interns from programs like UX Design, Industrial Design, and Interior Design. The students showcased their prototype to the city's urban planning staff, collecting feedback for future teams.

The City of Toronto was not just a benefactor but an active participant in the project. City officials provided valuable data sets to the students and set the stage for the students to demonstrate their creativity. The end of the internship saw the students present their prototype to the City's Urban Planning department, who provided insightful feedback that would lay the groundwork for future improvements and enhancements to the TinyTO model.

This project was run by the CCBI, which coordinates the partnership with the City of Toronto, the development of the internship, and the selection of student interns. This collaboration fostered an environment that encouraged the interns to look at challenges from various perspectives, disrupt traditional thinking, and deliver innovative solutions.

"Having the City of Toronto as our partner on TinyTO has been incredible for our Interns. The City is such a valued and esteemed partner, and outputs for this project are incredibly public-facing (over 100K visitors a year) and will remain so for a very long time. The applied professional skills gained have been at a level that outpaced even what industry experts were able to advise us on. What an incredible display of creative problem-solving we've seen to date, in a project that has pride of place for so many in Toronto. Be sure and visit City Hall to enjoy the work."

--Jennifer Gordon, Director, Centre for Creative Business Innovation

Barrett Centre for Technology Innovation: Kuka Robotics Capstone project



“Undertaking the Capstone Project for an industry partner is an unparalleled experience, offering a unique set of challenges that extend beyond the complexity of building the actual machine to ensuring that the final result is aligned with their expectations. From managing the team, organizing meetings with Kuka Robotics Canada representatives, verifying the suitability of ordered components for our design, supporting the team in overcoming design and programming obstacles, to building and testing the cell, each step has provided me with invaluable knowledge and experience.”

– Ion Istoc, KUKA Coffee Cell Student

Kuka Robotics came in and had an existing system that they wanted to take to another level using the creativity of our students. Once we had the problem, we brought in students and faculty members to solve it. The capstone class of students worked under the direct guidance of Kuka’s engineers, agreeing on objectives and deliverables, etc. After 12 weeks, they completed it successfully. Then all four students who worked on the project got hired!”

–Neal Mohammed, Director, Barrett Centre for Technology Innovation

BACKGROUND

Kuka Robotics, a leading industrial robotics and automation solutions provider, partnered with the Barrett CTI for a unique initiative—to reimagine their existing automated coffee machine model and create an engaging demonstration unit for their road shows and technology exhibitions. The challenge was to create a fully automated coffee dispenser system, with a Keurig Coffee maker, capable of selecting coffee pods, brewing coffee, and managing used coffee pods by placing them into a recycle bin. The Barrett CTI worked with Kuka and Humber faculty members to turn it into a capstone project for students.

The Kuka Robotics partnership is a great example of an effective academic-industry partnership, demonstrating how this kind of collaboration can lead to innovative solutions and open career paths for students. The capstone research project underscores the potential and opportunities present within such partnerships.

SOLVING INDUSTRY CHALLENGES

The project was presented to students as a capstone challenge, offering them the opportunity to apply their theoretical knowledge to a real-world industrial problem. A team of four students took on the project, leveraging their creativity and technical skills to create a robust solution. Throughout the course of 12 weeks, students worked with both faculty and Kuka Robotics’ engineers to develop an interactive, automated coffee-making experience. Their innovative solution was deemed a success, fulfilling Kuka’s objectives and showcasing for students the practical application of their education. The project’s success had significant career implications for the students, with all four members being offered jobs by Kuka Robotics before they graduated.

Faculty involvement was instrumental to the success of this project. Providing continuous guidance and support, they played a crucial role in ensuring that students’ creative solutions aligned with Kuka Robotics’ business objectives. The project served as a rewarding teaching experience for the faculty, allowing them to witness student creativity and the application of what they teach in class to practical problems.

Kuka Robotics’ decision to bring their business challenge to the Barrett CTI resulted in a fruitful collaboration that wasn’t just a learning experience for students, but provided the company with a real solution to a business opportunity. Not only did Kuka Robotics provide the business challenge, but they also offered their expertise throughout the development process, mentoring students and working with them to find a solution. Kuka Robotics intends to

showcase the automated coffee machine at upcoming technology shows and exhibitions, underlining the commercial applicability of the project.



Student Spotlight: Training for global experiences

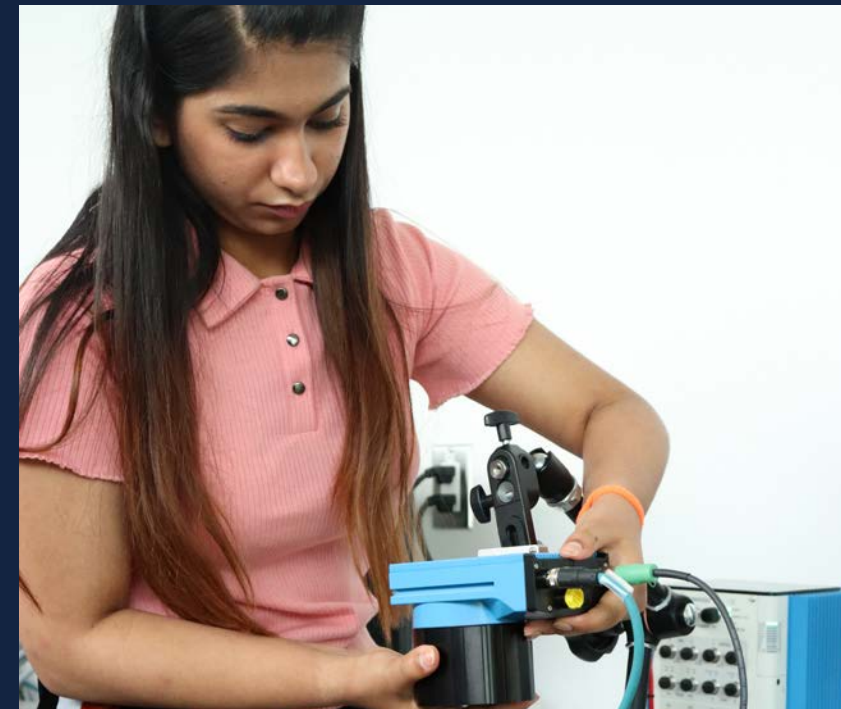
DANEEP LAHL AND MANNAT KAUR, BARRETT CTI

Daneep is a seasoned veteran in robotics competitions. He was drawn to technology from a young age, fueled by the wonder of the physics he saw demonstrated in YouTube videos.

Mannat is an international student from India. She balances her academic excellence with curiosity about how things work, which led her to Humber's Electromechanical Engineering Technology program.

Through the Barrett CTI, Daneep and Mannat joined forces at the 2022 SICK Hackathon in Germany, where they showcased their innovative ideas and potential on an international stage. Their unique idea of a 'Nurse Bot' – a robot designed to sort and prepare medication – demonstrated their vision for a more sustainable and efficient healthcare system.

This enriching experience not only provided them with the opportunity to meet like-minded peers and professionals but also underscored the value of practical, hands-on learning that Humber's Centre of Innovation Network espouses. Daneep echoed this sentiment when he said, "I learned a lot from the smart people I talked to and all the knowledge I got through my interaction with them was awesome."



4

Our Centres of Innovation

The COI Network isn't just a fusion of theory and practice; it's a fusion of ideas, disciplines, and people.

Centre for Social Innovation



ABOUT THE CSI

The changing economy, global uncertainty, and systemic barriers to equitable opportunities create the imperative for the CSI to support the development of new and innovative solutions for communities locally and globally. The CSI serves as a hub for tackling complex social problems, bringing together faculty members, students, subject matter experts, local community partners, and external experts to drive positive change.

The CSI also supports faculty members to engage in applied research with industry partners. With multiple projects funded by NSERC's College and Community Social Innovation Fund (CCSIF) faculty members are leading transformative work in the areas of cannabis legalization, safe consumption and harm reduction, affordable housing and community agency partnerships.

THEIR FOCUS

The CSI continues to refine its areas of focus and strategic direction. In 2022, the CSI identified key thematic pillars that will guide its work as it continues to build capacity.

The proposed thematic pillars are:

- **Social Impact**
- **Reconciliation**
- **Social Determination**

These pillars encompass a wide range of initiatives within the CSI's work, aligning with the Faculty of Social and Community Services and involving Humber's students, faculty members, and over 800 community partners.

Community partners play a crucial role in the CSI's Faculty integrated approach, and their involvement will be instrumental in driving the CSI's initiatives moving forward. By collaborating with these partners, the CSI ensures that its work remains rooted in real-world experiences, understands its impact, and generates sustainable solutions. As there are social implications to so many COI Network projects, the CSI serves as a "connective tissue" between the other

Did you know?

Last year the CSI received over \$400,000 in government research grants to support the completion of four CCSIF research projects!



COIs in the Network, and a key objective is to work in collaboration to better understand the social impact that COI activities have.

HIGHLIGHTS FROM 2022

In 2022, the CSI dedicated its efforts to foundational work, focusing on building the Centre, establishing relationships and identifying thematic pillars. Although in its first year of operation, the CSI achieved significant milestones and engaged in impactful initiatives that advanced its mission of driving social innovation and addressing complex societal challenges. Here are some notable highlights from the CSI's activities:

- **Othram Inc. Partnership:** A new collaboration between Humber and Othram Inc. was established, aiming to measure social and criminal justice impact. This collaboration involves the development of tools to support law enforcement efforts and the creation of educational programs for future forensic professionals. By leveraging their expertise and resources, Humber and Othram Inc. are working together to generate insights and solutions that have the potential to make a substantial social impact.
- **The Third Floor Gallery:** In Collaboration with the CSI, The Third Floor Gallery is dedicated to new and emerging artists, providing a gallery space free of charge and mentorship for the artist in creating and launching their first exhibition, focusing on community and local heritage. In 2022, The Third Floor Gallery exhibited the work for three artists, and collectively has hosted twelve solo artists, one research exhibition from a guest curator and a community art exhibition.
- **Social Innovation Spring Workshops:** The CSI organized a series of Spring Workshops focused on social innovation. These workshops provided opportunities for students, faculty members, and industry/community partners to network and collaborate in a workshop format. Held on March 1, March 22 and April 3, these workshops facilitated meaningful discussions, idea sharing, and the exploration of innovative approaches to address societal challenges.

WHAT'S NEXT

The CSI is poised to embark on an exciting journey, building upon its foundation to become a strong pillar of the COI Network. It remains committed to advancing social innovation and understanding social impact, collaborating with stakeholders, and creating a lasting positive impact in the communities it serves. Through its continued efforts, the CSI aims to drive change, foster equity, and contribute to a more sustainable and inclusive society.

Here are some key initiatives and plans for the future:

- **Faculty Engagement and Innovation:** The CSI recognizes faculty member's crucial role in driving social innovation. They have a dedicated Faculty Social Innovation Initiative Coordinator whose function is to amplify faculty work, identify innovative approaches that can be integrated into curriculum and foster opportunities for faculty member/CSI engagement. By leveraging faculty expertise and fostering collaboration, the CSI maximizes faculty-led initiatives' impact.
- **CSI Thesis Stream and Interdisciplinary Collaboration:** Over the course of the next year, the CSI will be developing a thesis stream that encourages interdisciplinary collaboration among students. This platform enables students to tackle complex social issues through applied research and capstone projects. The goal is to launch this opportunity for students in Fall 2024.
- **Social Problem Hack-a-Thon:** In Fall 2023, the CSI is planning a Social Problem Hack-a-Thon. Faculty teams from different disciplines will collaborate with a community partner to identify creative solutions to a real-time issue. The Hack-a-Thon offers faculty members opportunities, professional development, and to leverage their expertise.

Longo Centre for Entrepreneurship



ABOUT THE LONGO CfE

The Longo Centre for Entrepreneurship (Longo CfE) is your gateway to exploring the world of entrepreneurship and turning your innovative ideas into reality. Whether you're a Humber student, alumni, faculty member, or community member, the Longo CfE is here to provide the resources, expertise, and support you need to navigate the entrepreneurial journey and take bold risks.

At the Longo CfE, you'll find a vibrant community of like-minded individuals eager to collaborate, innovate, and create. Regardless of your passion, interest, or previous entrepreneurial experience, they offer specialized experiential learning opportunities designed to stimulate new ways of thinking and support your unique goals.

THEIR FOCUS

The Longo CfE is committed to providing comprehensive support to entrepreneurs or those who are looking to take their idea to the next level, enabling them to innovate, creatively solve problems, and engage in entrepreneurial activities. They cater to individuals in the earliest stages of entrepreneurship, guiding them in recognizing opportunities, developing, analyzing, and refining ideas, creating business plans, forming teams, and pitching their concepts. Through interdisciplinary and experiential learning opportunities, the Longo CfE equips you with the skills and mindset to become an innovative and strategic problem solver.

Their suite of programs and resources equips individuals with practical learning, mentorship, and hands-on experiences to thrive. Here are some key offerings:

- **Innovate and Create Entrepreneurship (ICE) Program:** A 12-week program guiding individuals in bringing their entrepreneurial ideas to life. Experts and experienced entrepreneurs provide guidance on innovation, marketing, finances, and more. Practical sessions refine ideas and prepare participants for successful launches.

- **Experience Ventures:** Experience Ventures offer students opportunities to develop entrepreneurial thinking while working with real-world innovators. Students gain experience with innovative companies in Canada, fostering creativity, resilience, and future vision. They also earn an honorarium for their work.
- **BMO Launch Me:** A program preparing students and recent alumni for success through a pitch competition. Skill-building workshops refine business ideas, and participants compete for funding across categories like Women Innovators, Groundbreaker, and New Graduate Startup.
- **Longo Family "Be Your Own Boss" Program and Video Competition:** A comprehensive seven-week workshop series providing foundational knowledge and skills for entrepreneurship. Topics include ideation, marketing, finance, and operations. The program concludes with the Longo Family Be Your Own Boss Pitch Competition, connecting participants with investors and fellow entrepreneurs. Students create a video pitch about their idea and have an opportunity to win funding.
- **Women Entrepreneurs:** Tailored support for women entrepreneurs, such as the Start My Business Boot Camp. This intensive program offers guidance and resources for women considering starting their own ventures, fostering leadership, empowerment, and connections.
- **Entrepreneurship Modules:** A series of 10-part Key to Entrepreneurship Modules introducing fundamental concepts. Engaging videos, quizzes, and resources provide a strong foundation for aspiring entrepreneurs.

The Longo CfE's programs and resources enable individuals to thrive, whether launching businesses, becoming workplace innovators, or gaining valuable experience for future careers. Practical learning, mentorship, and hands-on experiences equip participants with the skills, knowledge, and support needed for entrepreneurial success.

HIGHLIGHTS FROM 2022

The Longo CfE has had an eventful year, filled with impactful initiatives and collaborations that continue to foster a thriving entrepreneurial ecosystem. Here are the highlights from 2022:

- **The IDEA Lab:** In partnership with Humber Libraries, the Longo CfE is bringing the IDEA Lab to the Lakeshore Campus this fall. The IDEA Lab will provide opportunities to explore and create digital media and new technologies. The Lab will feature studio spaces, including equipment for audio recording, video production, 3D printing and more. It will also offer in-person and online support for faculty members looking to create digital, media-rich assignments and students working to complete them.
- **Longo Family Leader in Residence:** Thanks to the generous support of the Longo Family, the Longo CfE hired Damian McIntyre this year as our first Leader in Residence. Damian works as the Startup Engagement Lead and Head of Research for TechBeach and is passionate about teaching and training entrepreneurs and innovators, as well as creating stronger linked between Canadian and Caribbean entrepreneurs. In addition to mentoring aspiring innovators at Humber, Damian facilitated the Innovate and Create Entrepreneurship (ICE) Program in 2022. ICE received an overwhelming response last year, with over 130 applications. To accommodate the increased demand, the program was adjusted, incentivizing the top 10 participants to foster dedication and hard work.





- Expansion and Community Engagement: The Longo CfE has expanded the reach of its programs and its engagement with diverse communities. For example, the Longo CfE expanded their “Longo Family Be Your Own Boss Video Pitch” workshop, requiring attendance at five out of seven workshops for qualification. The Longo Family will assess the video pitches, and results will be celebrated at an upcoming event.

- Engaging the High School Community: The Longo CfE actively collaborated with the YMCA on a Longo Be Your Own Boss video pitch competition, providing scholarships and mentorship to early-stage entrepreneurs in high schools. This initiative aims to nurture entrepreneurship at an early age, empowering young individuals to pursue their business ideas and develop valuable skills for the future.
- Gender Equity in Entrepreneurship Training (GEET): The Longo CfE partnered with Seneca Polytechnic on the GEET research project, focusing on mentor training and integrating Equity, Diversity, and Inclusion (EDI) principles into entrepreneurship coaching and mentoring. This collaborative effort aims to enhance mentorship practices, ensuring they align with EDI principles and support aspiring entrepreneurs from diverse backgrounds, fostering inclusivity and equity within the entrepreneurial ecosystem.

WHAT'S NEXT

The Longo CfE is launching a Women’s Entrepreneurship program, offering specialized training, resources, and expertise to Humber’s women students and alumni who want to become business leaders. They are also developing an Arts Entrepreneurship program in partnership with Humber’s Faculty of Media and Creative Arts.

Their specialty programs include their Indigenous Entrepreneurship program in partnership with Redbird Circle and Humber’s Indigenous Education and Engagement department. This program will allow students who self-identify as First Nation, Métis, Inuit or are part of an Indigenous nation from around the world to learn entrepreneurial skills and explore their ideas for starting a small business.

The Longo CfE’s planned partnership programs for this year include the HELIX Summer Institute in partnership with Seneca Polytechnic. This is a no-cost, six-day intensive virtual “design jam” that provides participants with tools for collaborating and building solutions to pressing social or business challenges.

They are also working with HELIX to review incubators using the Gender Smart Entrepreneurship Education and Training Plus framework, assessing the status of equity, diversity, and inclusion in entrepreneurship events, activities, programs, as well as develop gender-smart materials and supports.



Centre for Innovation in Health and Wellness



Did you know?
In its first year of operation, the CIHW had 446 students and 348 faculty members and staff got involved in its initiatives.

ABOUT THE CIHW

The CIHW is committed to advancing health and wellness through innovation, collaboration, and research. By leveraging the expertise of students, faculty members, healthcare practitioners, and community partners, the CIHW aims to address health and wellness challenges and create a meaningful change in prevention and management of chronic diseases.

As the CIHW continues to evolve, it remains dedicated to its vision of a better, more equitable, and inclusive health and wellness programming in the community. By fostering innovation, enhancing collaboration, and conducting impactful research, the CIHW plays a pivotal role in advancing health and wellness, driving positive change, and shaping the future of community health and wellness.

THEIR FOCUS

The CIHW is committed to leading and driving innovation in health, wellness and prevention and management of chronic diseases. Building on the foundation of their vision and collaborative approach, the CIHW's focus encompasses the following key areas:

- **Humber Healthy Campus Programs at Humber:** As part of Humber's commitment to the Okanagan Charter to create a healthy campus environment, the CIHW has designed and developed various innovative health and wellness programs. Initiatives such as "Healthy Breaks@Humber," "Mindfulness@Humber," and "Wellness Coaching@Humber" are designed to empower students and staff to prioritize their health & well-being and cultivate healthy lifestyles. By offering these programs, the CIHW contributes to a supportive and nurturing campus culture that values the holistic health and well-being of the Humber community.
- **Research and Community Partnerships:** The CIHW continues to undertake bold and innovative research projects that address critical health-related topics, including the impact of COVID-19 on youth mental health and the benefits of mindfulness on health and well-being, among others. Through strategic partnerships with organizations like the Canadian Red Cross, Community Health Centres and the City of Toronto, the CIHW is committed to strengthening community connections and collaborations to drive forward evidence-based solutions for enhancing health and wellness in the community.

- **Health Equity and Access:** The CIHW recognizes the importance of achieving health equity and improving access to quality health resources for all individuals. They strive to develop innovative solutions that address disparities in health outcomes, promote inclusivity, and reduce barriers to accessing essential health services. By working closely with students, staff, faculty members, community partners, and healthcare practitioners, the CIHW aims to develop strategies that empower underserved populations and ensure equitable access to health and wellness resources in the community.

HIGHLIGHTS FROM 2022

The CIHW had its official launch last year, marked by significant achievements and impactful initiatives that promote health and well-being. Here are some of the highlights from 2022:

- **Health Innovation Challenge:** The CIHW organized a highly successful Health Innovation Challenge to find innovative solutions to influence health behaviours in preventing and managing Type 2 Diabetes. The Challenge played a crucial role in bringing together students, faculty members, healthcare experts, and community partners to tackle a complex healthcare issue through collective thinking and designing innovative solutions.
- **Humber Healthy Campus:** This initiative prioritized the health and well-being of students and staff by providing innovative health and wellness programming. These programs aim to create an inclusive, supportive and healthy environment for the Humber community. The initiative included three programs:
 - » **Mindfulness@Humber:** In response to the anxiety and burnout experienced during the COVID-19 pandemic, the CIHW developed the Mindfulness@Humber initiative. This program provided dedicated time/space for faculty members, staff, and students to engage in 10-15 minute mindfulness breaks. With active participation and leadership from students, staff, and faculty, this inclusive initiative has promoted mental well-being and resilience within the Humber community.
 - » **Healthy Breaks@Humber:** Recognizing the negative effects of prolonged sitting, the CIHW launched the Healthy Breaks initiative. This program aims to introduce movement or mindfulness breaks after long periods of inactivity. Around 300 students have actively participated in these breaks during classes and administrative meetings, fostering a culture of

- wellness and physical activity on campus. The initiative is student-led and supervised by faculty and staff.
- » **Wellness Coaching and Experiential Learning:** The CIHW's commitment to experiential learning is exemplified through the Health and Wellness Coaching program. Led by students, this initiative provides wellness coaching services to Humber employees and community partners. Through this program, students gain real-world experience aligned with Humber's learning outcomes while promoting well-being among individuals and organizations.

WHAT'S NEXT

Health Research: CIHW is focused on research projects that will contribute valuable insights and findings in the areas of mental health, health equity as well as prevention and management of chronic diseases.

- **Mental Health:** CIHW is focused on addressing the impact of mental health on specific populations, particularly youth. With recently secured funding, they will embark on a mental health research project focused on North Etobicoke, specifically examining the impact of COVID-19 on the mental health of youth. Additionally, CIHW is also exploring research opportunities in the areas of mental health of international students and the impact of mindfulness on preschoolers.
- **Health Tech and Type 2 Diabetes:** CIHW is exploring how the use of health technology can aid in the prevention and management of Type 2 Diabetes.
- **Health Equity:** CIHW will be collaborating with community health partners to examine the health equities in access and delivery of health care services.

Interprofessional Education: CIHW recognizes the importance of interprofessional collaboration in the healthcare field. Building on the success of the cross-collaboration project between Humber's Faculties of Health Sciences and Wellness and Social and Community Services, CIHW aims to further develop interprofessional educational experiences for students in programs such as paramedics, emergency communication management, and police foundations. These initiatives will enhance students' understanding of collaborative practice, preparing them for effective teamwork and holistic healthcare delivery.

Centre for Creative Business Innovation



ABOUT THE CCBI

The CCBI plays a vital role in fostering creativity, innovation, and interdisciplinary collaboration. By encouraging students and their industry and community partners to think creatively and work collaboratively, the CCBI has become a catalyst for driving change and solving complex problems.

At the heart of the CCBI's mission are the core principles of Question, Create, and Share. This approach emphasizes multi-disciplinary collaboration and mobilizing change in uncertain times. Leveraging its expertise in media, performing and fine arts, design, and communications, the CCBI helps communities and businesses address their challenges and develop innovative solutions. By providing experiential learning opportunities, the CCBI enables students to work with real-world clients, gain practical experience, and develop valuable skills.

THEIR FOCUS

The CCBI continues to excel in developing unconventional strategies to solve “wicked problems” and helping companies evolve concepts swiftly to meet current and ever-changing needs. With a track record of success, the CCBI has completed over 180 industry-partnered projects in diverse sectors such as grocery, research analysis, marketing, healthcare, social service, gaming, and music performance.

The CCBI has helped establish Humber as a leader in the rapidly evolving fields of virtual reality (VR), augmented reality (AR), and user experience (UX) testing. Humber's comprehensive business programs enable the CCBI to offer the skills and expertise of Humber's staff and students to collaborate with external partners on projects. By reframing the way companies conduct business, generate new ideas, and engage with potential employees, the CCBI helps organizations stay ahead in the ever-changing business landscape.

The CCBI provides several key focus areas for its partners:

- **Usability testing:** Partners can access the CCBI's expertise in usability testing, which includes building emotional connections with people and utilizing their state-of-the-art usability lab.

This allows partners to gather valuable insights into customer and employee behaviour and preferences. The CCBI generates high-quality data and analysis to help partners understand what their customers and employees value and assists in creating and enhancing that value across all aspects of their brand.

- **Multimedia production, virtual and augmented reality:** Recognizing the transformative impact of digital media, AR, and VR technologies on commerce, the CCBI is constructing a cutting-edge facility. This facility will house a sophisticated interaction design studio and a professional-quality multimedia production studio equipped with motion capture, AR, VR, and high-performance sound capabilities. These studios will serve as powerful platforms for creating unique audience experiences, promoting engaged interaction between companies and their customers and employees.
- **Business expertise:** The CCBI leverages the expertise at Humber's Faculty of Business to support partners in turning creative ideas into marketable products and services. Faculty members and students collaborate with project teams to develop business plans, marketing strategies, and informed decisions about technology purchases. By reducing implementation risks, evaluating return on investment, and integrating best practices, the CCBI helps partners improve their business management and successfully commercialize their products.

The CCBI also focuses on research in digital media and the arts. Using “Research-Creation” as a framework, the CCBI explores interdisciplinary collaboration, critical thinking, and creative presentations of findings. They aim to incorporate research-creation concepts into undergraduate education, measuring its impact on student engagement and research skills. Supporting artists and creators at Humber and in the community, the CCBI helps identify, collect, and analyze their creative processes. Under this framework, students can engage in design jams, sprints, contests, challenges, workshops, lectures, and project initiation.



HIGHLIGHTS FROM 2022

- **Fellowships:** Each year, the CCBI offers paid work opportunities for Humber students, providing real-world experience. Under guidance, students work in creative teams, developing artifacts based on research practices, cultivating intercultural and creative thinking.
 - » **Culture's Compass:** CCBI organized the annual Culture's Compass conference, a two-day virtual event supported by the City of Toronto. Students plan and execute the conference, covering topics like the role of the artist, diversity, and arts policy. With global reach, the event highlights themes, celebrates professionals, and envisions the future of the arts.
 - » **Graphic Medicine Fellowship:** CCBI collaborates with the Asclepius Snakebite Foundation, engaging students in a project to raise awareness about snakebites as a neglected tropical disease. Participants create visual materials, identify venomous snakes, and launch social media campaigns. Students from various programs actively participate.
 - » **Indigenous Transmedia Fellowship:** A collaboration between CCBI, Humber's Indigenous Education & Engagement department, and Humber Galleries, the fellowship offers Indigenous students a safe space for creative practice. Fellows worked on the film project “Stolen,” exploring the Sixties Scoop's impacts.
 - » **Intercultural & Creative Music Fellowship:** In partnership with the Aga Khan Museum, this fellowship supports artists in gaining professional experience. Fellows work on a music project titled “The Space Between Time,” creating songs, videos, and poetry. Guest speakers and mentors enrich the experience.
 - » **Nuit Blanche Fellowship:** In collaboration with Nuit Blanche Toronto, this fellowship allows students to explore their artistic talents. The fellowship focuses on the curatorial theme “The Space Between Us.” Participants contribute to an interactive art installation called “Together, Apart,” fostering community and empathy.
 - » **TinyTO Internship:** CCBI collaborates with the City of Toronto to reimagine the TinyTO model at City Hall. The project involves designing, building, and branding the model, incorporating Indigenous perspectives. The internship is a multi-disciplinary student project managed by CCBI.



Did you know?
Last year we had 566 students and 23 faculty participate in projects and activities at the CCBI!



**STUDENT SPOTLIGHT:
HANDS-ON
EXPERIENCE FOR A
CAREER IN THE ARTS**

Adina Vlasov

Adina Vlasov is a gifted musician and a 2022 fellow of the CCBI's Intercultural & Creative Music Fellowship (ICMF). Adina realized music was her passion when she took a gap year after high school. She found that the silence and stillness she found kindled her desire to express herself through music.

ICMF fellows partner with the Aga Khan Museum and dive deep into the Islamic history, music, and art showcased by the museum's collection. Under the guidance of a creative producer and project lead, fellows compose and film an original piece of music inspired by the collection.

In the fellowship, Vlasov was given the freedom to explore her musical inclinations and develop her skills as an artist. She played the guitar and sang as part of the final performance at the Aga Khan Museum.

Vlasov remains grateful for the financial support provided by the Aga Khan Museum and the affirming recognition of the value of their creative work. The fellowship also nurtured lasting professional relationships, as Vlasov envisions future collaborations with the talented individuals she met through Humber's program.

"It was such a great opportunity to get to create something from scratch, I learned so much more than I thought I would. I got to utilize everything that I learned in the Humber ADMC program and even learn things I didn't know from my colleagues. Nothing but gratitude that I was able to be a part of creating this year's Culture's Compass."

- Anonymous Fellow

WHAT'S NEXT

- CCBI is partnering with Humber's CSI and CF Sherway Gardens to create a massive mural that speaks to the Gardens Project. Students will work with a professional mural artist and learn how to scale, prep and project manage public art, including liaising with high-profile clients.
- We have an exciting new expansion of our Culture's Compass conference! This Fellowship is now partnered with Small World Music to co-present CC within Small World Music's annual Global Toronto conference. Six Fellows are working to produce both events under guidance from our partners. Global Toronto brings amazing opportunities for culture producers and musicians to make business connections, gain skills and build networks. Join us on Lakeshore Campus on Wednesday, September 20th!

- TinyTO is researching and collaborating with Indigenous community leaders to ensure the model includes and respects the world views of first peoples within Treaty 13. We expect to include some stunning visual art overlays to this project so watch that space at City Hall.
- We continue our research projects with the City on examining how partnerships with higher education institutions (HEIs) can help solve the crisis of space facing creatives in the GTA. A localized solution could provide fantastic opportunities for upskilling, network and audience building and new content creation.
- CivicLabTO returns this November with our second Academic Summit. CCBI is looking into research around improving data sets, economic development around multi-faceted sustainability within the creative industries, and community building through creative placemaking.

Barrett Centre for Technology Innovation



ABOUT THE BARRETT CTI

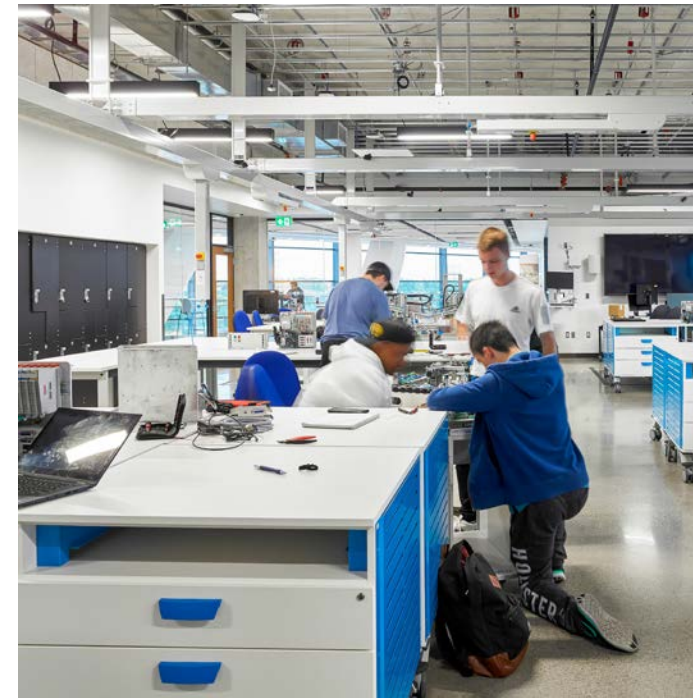
Machine learning, cybersecurity, web3, digital twins, co-bots are just a few examples of the transformative technologies reshaping industries and economies worldwide. However, Canada faces an innovation gap that hinders its competitiveness and economic growth. The Barrett CTI aims to bridge this gap by equipping students with the necessary skills for the future workforce and empowering industry partners to revolutionize their operations through the adoption of cutting-edge technologies.

Recognizing the profound impact of advanced technologies on work and daily life, the Barrett CTI serves as a dynamic hub for innovative collaboration. It focuses on developing human-centred, technology-enabled solutions for businesses and communities. By creating the right conditions for entrepreneurs, small and medium-sized enterprises (SMEs), established companies, students, and staff to thrive, the Barrett CTI helps reshape Canada's economic future and fosters prosperity for all Canadians.

THEIR FOCUS

The Barrett CTI is dedicated to collaborative innovation, leveraging technology to address the needs of people, businesses, and communities. Their primary focus is on:

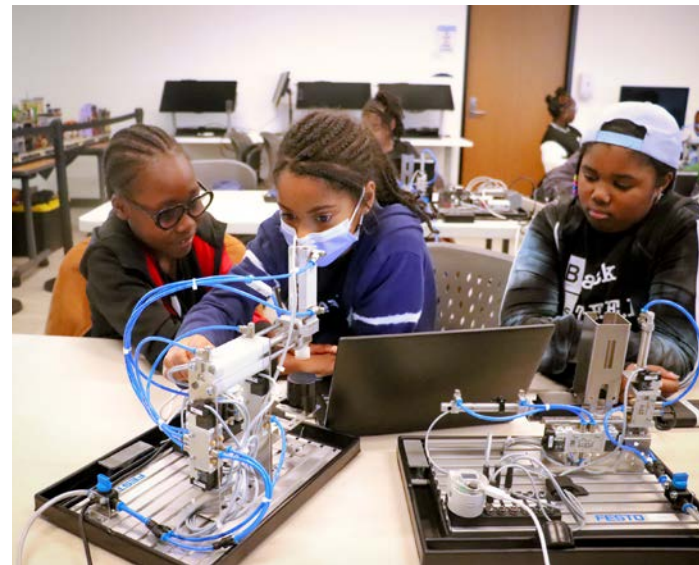
- **Increasing Innovation Capacity:** The Barrett CTI helps businesses enhance their innovation capabilities by fostering an environment conducive to experimentation, exploration, and creativity. Through access to advanced technologies and expertise, companies can drive innovation and stay at the forefront of their industries.
- **Generating New Revenue Streams:** By embracing technology-driven solutions and innovative business models, businesses can discover new opportunities for revenue generation. The Barrett CTI assists companies in identifying and capitalizing on these possibilities, enabling growth and sustainability.
- **Developing Smart Products and Services:** The Barrett CTI empowers organizations to develop smart and connected products and services that meet evolving market demands. Leveraging emerging technologies, such as the Internet of Things (IoT), digital twins, and co-bots, businesses can create innovative offerings that provide value and enhance customer experiences.



- **Accelerating Design Cycles:** With access to state-of-the-art prototyping labs and collaborative spaces, the Barrett CTI helps businesses streamline their design and development processes. Rapid prototyping and iterative design methodologies enable companies to bring their ideas to market faster and more efficiently.
- **Expanding into New Markets:** The Barrett CTI supports companies in exploring new markets and expanding their reach. By leveraging technology and market insights, businesses can identify and seize opportunities for growth beyond their traditional boundaries.
- **Enhancing Competitiveness:** Through technological advancements and innovation, the Barrett CTI helps businesses enhance their competitive advantage both domestically and internationally. By staying at the forefront of technological trends, companies can differentiate themselves and thrive in the global marketplace.



- **Attracting and Retaining Top Talent:** The Barrett CTI provides businesses with access to a pipeline of skilled, innovation-ready talent. By engaging with students and offering opportunities for collaboration, companies can attract and retain top talent, ensuring a continuous influx of fresh perspectives and expertise.
- **Connecting with Customers in Engaging Ways:** The Barrett CTI assists businesses in leveraging technology to connect with customers in meaningful and engaging ways. Whether through immersive experiences, personalized interactions, or innovative marketing strategies, companies can forge stronger relationships with their target audience.



HIGHLIGHTS FROM 2022

- **New micro-credential in mechatronics:** As a result of its ongoing partnership with Festo Canada, the Barrett CTI worked with faculty members to develop a new micro-credential in mechatronics. Earlier this year, the Barrett CTI welcomed its first intake of students for the course, with 25 young women joining the program.
- **Continued long-term funding support:** The Barrett CTI received a significant boost through the renewal of funding, with additional support from the Barrett Family Foundation. This renewal ensures the continuation of funding and support for the Barrett CTI for the next 15 years, providing long-term stability. Additionally, the Barrett CTI received a remarkable \$30 million gift, solidifying its position as a leading hub for technological innovation and applied research.

- **Professional Development and STEAM Outreach:** The Barrett CTI continued its commitment to professional development by offering a range of in-person sessions, such as the FESTO Modern Industrial Pneumatics course, KUKA AMRs with Artificial Intelligence workshop and Additive 3D Scanning and 3D Printing sessions, expanding the knowledge and skills of Humber employees. Additionally, their STEAM Workshops reached approximately 7,800 middle and high school students in collaboration with Community Outreach and Workforce Development.
- **Research Projects and NSERC Grant Awards:** The Barrett CTI continued to support numerous applied research projects, enabling collaboration between students, faculty members, and partners. They were proud to announce that several of their projects secured NSERC grant funding from the federal government, further validating their impact and significance.

Did you know?

Over 7,800 middle and high school students participated in the Barrett CTI's STEAM outreach programs—more than double the number from last year 3,600.

STUDENT SPOTLIGHT: CAN A RECYCLING ROBOT GET KIDS INTERESTED IN STEM?

Dillon Kong, Barrett CTI

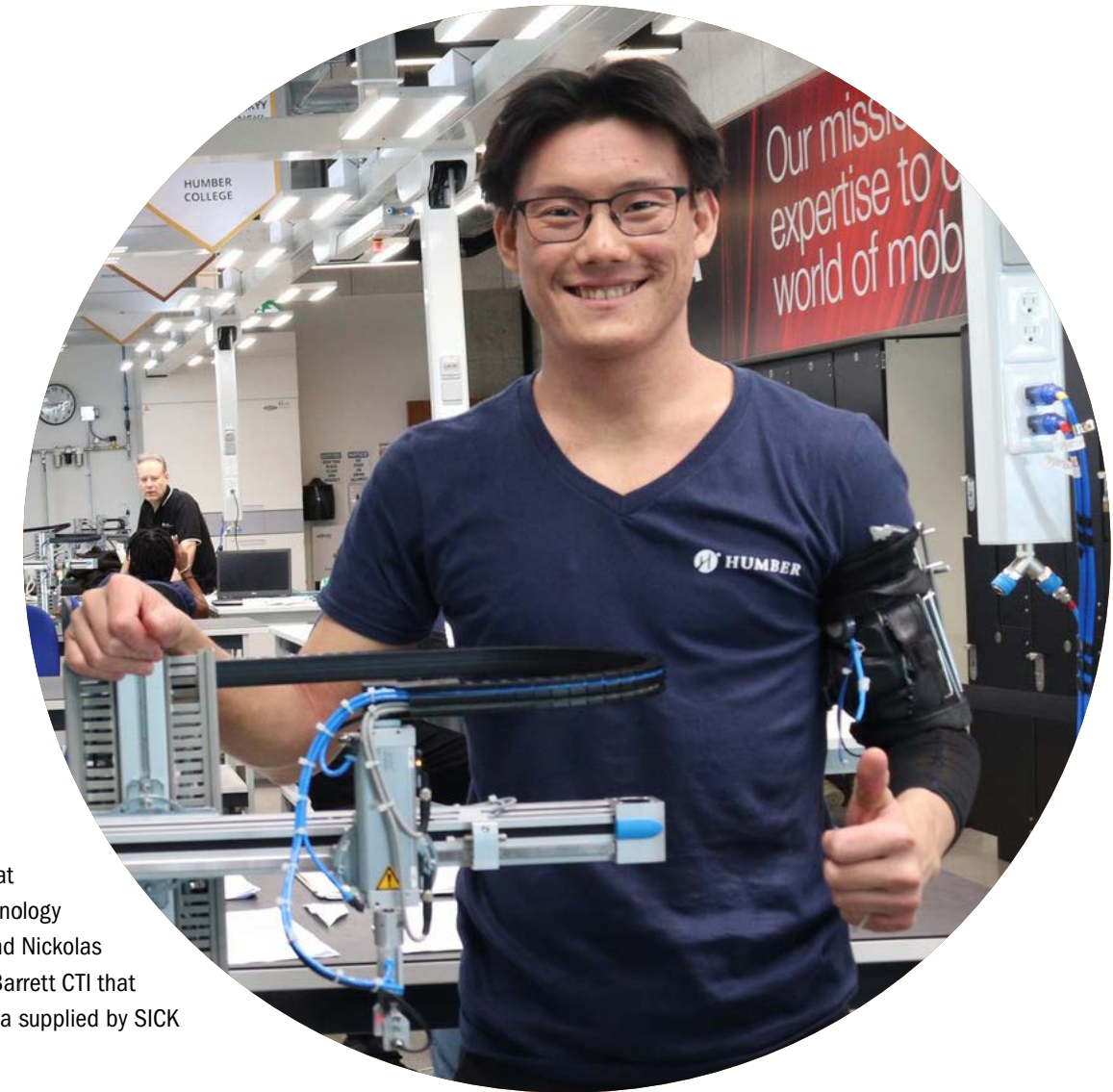
Dillon is an Electro mechanical Engineering Technology student at Humber. Dillon and Humber technology developers Mateusz Cwalinski and Nickolas de Boer created a robot for the Barrett CTI that sorts recycling using a 3D camera supplied by SICK Canada.

That robot does more than merely sort recycling materials—it's also helping to spark an interest in science, technology, engineering, and mathematics (STEM) for kids.

Kids can race the robot to sort recyclable materials, offering a fun and engaging way for them to learn what they could do with a career in STEM.

Dillon joined the project to pursue his interest in skills competitions and robotics. Working alongside Mateusz and Nicholas, Dillon led the robot's programming.

The recycling robot serves as a testament to the skills and capabilities of Humber's students and staff, providing a glimpse of the future achievements that Humber students may reach in their studies.



Thank you to our partners



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