



**WE ARE
PUSHING
BOUNDARIES**

APPLIED RESEARCH & INNOVATION
A YEAR IN REVIEW | 2015-2016

LETTER FROM THE DEAN



DEAN OF RESEARCH, DARREN LAWLESS
PHOTO BY MICHELLE BOZZETTO

The 2015-16 academic year was a year of transition for Applied Research & Innovation. Late in the year, I was honored to assume the role of Dean and was immediately struck by the excellence, quality, and breadth of applied research. I can hardly curtail my excitement at the prospect of helping Humber assume its logical place as a leader in a polytechnic applied research.

People often ask why I am so passionate about applied research. It's simple: applied research gives students the opportunity to practice the skills they're learning in real world conditions. Engaging in applied research offers meaningful benefits for students as they acquire the confidence to launch careers and quickly make impacts in their industries and communities. At the same time, the work done by students can have significant positive impacts for the partners involved in the projects, and the faculty involved stay current with trends in their fields—overall, winning conditions for all involved.

Going forward, 2016-17 promises to be exciting. We plan to draft and launch Humber's first ever strategic applied research plan. As part of that plan, three centres of innovation, Humber's attempt to give meaning to interdisciplinary work with our partners, will be launched. We will begin planning and developing the Centre for Technology and Innovation (CTI), a project supported by \$15.6 million dollars of federal research innovation funding, and will continue to support the integration of applied research into the new Centre for Entrepreneurship—a Humber flagship program supported by the newly renovated G building at the Lakeshore campus. We will continue to support applied research in all Humber schools via internal funding and will aggressively seek external funding to support innovation. Finally, this fall we will move to a new home closer to the Centre of Teaching & Learning, where we expect to generate significant synergies that will benefit the Humber community. Exciting times indeed!

Darren Lawless, PhD
Dean, Applied Research & Innovation
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WHAT'S INSIDE

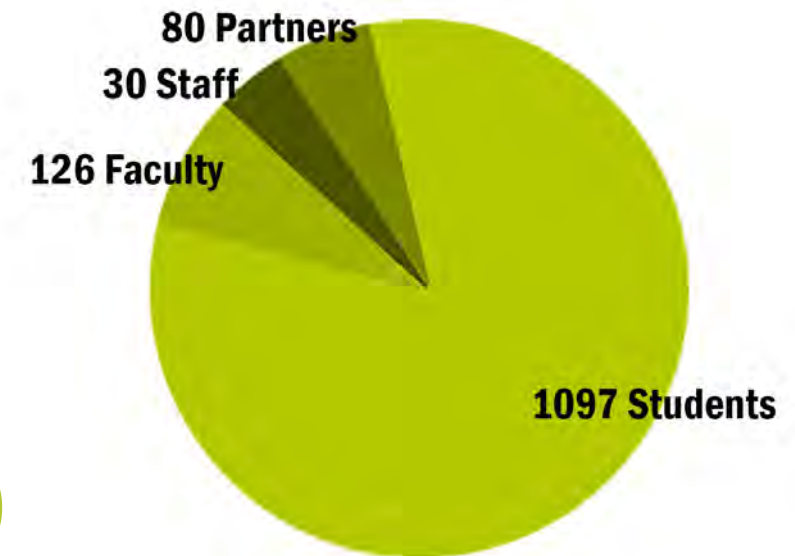
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Credits

Cover Image by Peter Turcot, Creative Photography Student
Graphic Design by Michelle Bozzetto, Media Communications Assistant
Content & Editing by Michelle Bozzetto, Media Communications Assistant

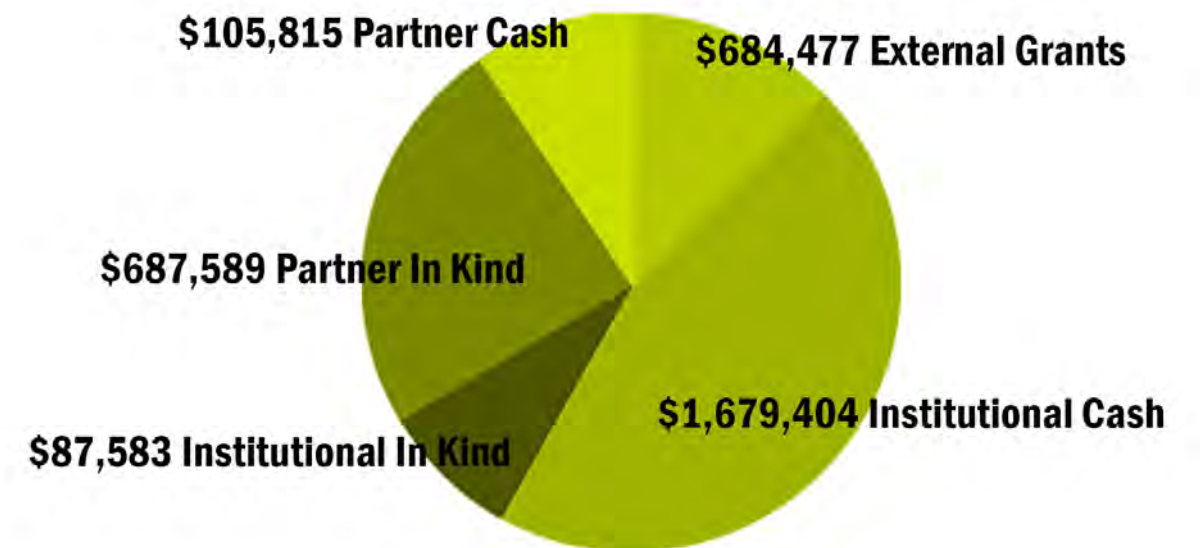
QUICK FACTS

OUR COLLABORATORS



85
PROJECTS

RESEARCH DOLLARS



Total: \$3,244,868

RESEARCH EXCELLENCE AWARD

JEANINE WEBBER 2015-2016 AWARD RECIPIENT



PHOTO BY RYAN PATTERSON

Associate Dean of the School of Social & Community Services
Dr. Jeanine Webber is the 2016 recipient of Humber's Research Excellence Award. Jeanine's research in Corrections and Policing has extensively covered topics of mental health, academic development, and community policing since 2011. Most recently, her research project evaluating the Neighbourhood Policing Program (NPP) with the Toronto Police Service has received a Social Sciences and Humanities Research Council Community and College Social Innovation Fund (SSHRC-CCSIF) award and a SSHRC Institutional Grant.

Over the last five years, Jeanine's research has included a number of co-investigators, students, and various partners including The John Howard Society – Toronto, The St. Leonard's Society of Toronto, and the Toronto Police Service. Her research has been recognized locally and internationally through her numerous publications, presentations, and conference engagements.

In March 2016, Jeanine and two of her fourth year Criminal Justice students travelled to Winnipeg to speak about the results of their research with the Toronto Police Service at the CIG Applied Research Symposium.

About the Award

The Research Excellence Award is designed to recognize faculty and staff members who have made significant contributions to the growth of Humber's research program. These contributions may include:

- creation of a well-established research program;
- research that involves students as research assistants or researchers. Ideally, the research will enable students to apply concepts they are learning in their program;
- research that attracts external partners as well as external funding. Often the research program will begin with internal funding and then it will grow to attract external dollars;
- research that has an impact on the researcher's field or industry (e.g. patents) as well as on Humber students and/or curriculum; or
- research that includes knowledge dissemination through presentations, conferences, publications, etc.



MINISTER OF SCIENCE KIRSTY DUNCAN
TOURS SIM LAB

PHOTO BY RYAN PATTERSON

PROGRAM EVALUATION OF NEIGHBOURHOOD POLICING PROGRAM

Partner : The Toronto Police Services
Project lead: Jeanine Webber, School of Social & Community Services
Co-investigators: Alyssa Ferns, Michael Gamble, Doug Thomson, Samantha Brown, Daniel Fowler
Project Co-ordinator: Kimberly Axford
Funder: SSHRC
Students : Jamal Brown, Chelsea Burton, Brooke-Lynne Chapham-Haynes, Vanessa Headley, Mia Hershkowitz, Sarah Medves, Nico Novembre, Kammy Padma, Akbar Qaderi, Kayla Sheehan, Stephanie Sulit, Sherene Whyte

The primary goals of the Toronto Police Service's Neighbourhood Officer Program (NOP) are to reduce crime and to increase public safety and public trust in the police. The research team from the School of Social & Community Services are completing a comprehensive evaluation of the NOP by conducting surveys and focus groups across the Toronto neighbourhoods that have adopted the NOP model with adult and youth community members. Students from several programs are gaining valuable experience with co-facilitating focus groups, survey collection and data analysis. The project began in May 2013, and preliminary results suggest that the NOP is making positive changes within the community. Full results are anticipated in 2018.

“FINDING EMPLOYMENT AS A STUDENT CAN SOMETIMES BE DIFFICULT, AND I THINK TO ALIGN EMPLOYMENT WITH STRENGTHENING YOUR STUDIES IS INCREDIBLE.”

**CHELSEA BURTON, STUDENT
BACHELOR OF APPLIED ARTS, CRIMINAL JUSTICE**

RESEARCH PROJECTS

THE SEATBOT: AN UNMANNED SYSTEM FOR IMPROVING QUALITY ASSURANCE IN THE AUTOMOTIVE INDUSTRY

Partner: 416 Automation Inc.
Project lead: Mohammad Al-Rady, School of Applied Technology
Co-investigator: Neal Mohammed, School of Applied Technology
Funder: NSERC
Students: Joshua Donnelly-Robertson, Theodor Willert

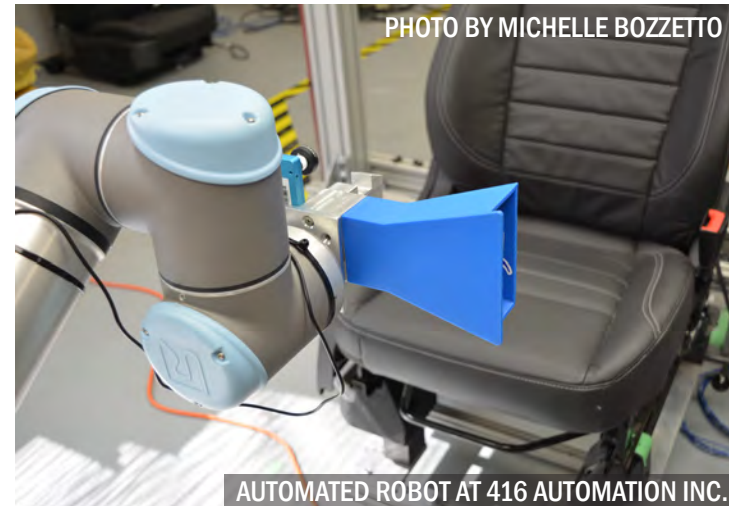


PHOTO BY MICHELLE BOZZETTO

AUTOMATED ROBOT AT 416 AUTOMATION INC.

Humber students worked with industry partner 416 Automation Inc. to build an automated system to eliminate the need for an operator to perform a functional or electrical tests of automotive seats. The unmanned system developed can automatically test the functionality of the seat buckle, power seat buttons, manual seat track bar, manual seat leavers and other features of seats in automotive vehicles. The developed prototype is a huge success for both 416 Automation Inc., who already has clients interested in purchasing the system, and for Humber students, who have been hired on at 416 Automation as a result of their participation in this project.

TESL METHODOLOGY: A TRANSFERABLE TEACHING PEDAGOGY IN NON-ESL CLASSROOMS

Project lead : Vera Beletzan, School of Liberal Arts and Sciences
Co-investigators: Paula Gouveia, School of Liberal Arts & Sciences
Funder: Humber Applied Research & Innovation
Student: Kashaan Issar

Kashaan Issar conducted and transcribed interviews with faculty members who described how Teachers of English as a Second Language (TESL) training has had a positive impact on their teaching practice in non-ESL contexts. TESL training has made them more aware of pedagogical strategies that they can use to support ESL students in non-ESL classrooms. With a deeper understanding of the diversity of their students, the participants are better able to design and delivery lessons appropriate to a variety of contexts, regardless of the discipline. The researchers hope to extend this study further by conducting a full literature review.



PAUL GRIFFIN AND STUDENT, REBECCA CLEMENT

PHOTO BY MICHELLE BOZZETTO

INVESTOR RISK TOLERANCE ASSESSMENT RESEARCH

Partner : PlanPlus Inc.
Project lead: Paul Griffin, The Business School
Funder: Humber Applied Research & Innovation
Student: Rebecca Clement

How risk and risk tolerance are assessed and discussed varies greatly between each financial institution and financial advisor, representing a huge challenge for the Ontario Security Commission (OSC) and all regulators. It seems every institution has its own definition and understanding of risk, and there isn't a standardized format or even standard language around risk. To address this challenge, PlanPlus Inc. partnered with Humber to look at the usability and language of risk assessment forms currently used in Canada. During the project, student Rebecca Clement approached investment firms, banks, and domestic and international regulators to conduct interviews, complete surveys, and provide current risk assessment forms. With the information successfully gathered, compiled and analyzed, the project team produced a detailed report that gained international recognition.

STUDENT, THEO WILLERT, TESTING THE AUTOMATED ROBOT HE DEVELOPED WITH 416 AUTOMATION INC.



PHOTO BY MICHELLE BOZZETTO

SPYRA MECHANICAL DESIGN

Partner : Crystal Fountains Inc.
Project leads: Hassan Hassan and Sherif Hanna, School of Applied Technology
Funder: Humber Applied Research & Innovation, Crystal Fountains Inc.
Students: Eric Andrews, Michael Domenichiello, Arham Khan, Jacob Pranger

A team of faculty and students from the School of Applied Technology worked together with industry partner Crystal Fountains to build a fountain drive system that is electromechanical rather than pneumatic. The more reliable, controllable, and compact prototype, as well as the introduction of the innovative ball design and enhanced performance tension cables, built by the students, offers the company a unique advantage over the competition. This innovative fountain nozzle has exceedingly higher motion capabilities than previous Crystal Fountains models, while reducing footprint and complexity of the design using innovative mechanical techniques. The final deliverable was a fully functional machined nozzle that was tested at Crystal Fountains facilities.

SPYRA MECHANICAL DESIGN FOR CRYSTAL FOUNTAINS INC.



INDUSTRY SPONSORED INDUSTRIAL DESIGN PROJECT: OFF CAN BE BEAUTIFUL

Partner: Crystal Fountains Inc.
Project lead: Odin Cappello, School of Applied Technology
Co-investigators: Glenn Moffat, School of Applied Technology; Sherif Hanna, School of Applied Technology; Hassan Hassan, School of Applied Technology; Kifah Al-Ansari, School of Applied Technology
47 students from the 2nd year Industrial Design program participated in this project

Crystal Fountains, a leader in the commercial fountain industry, challenged Humber's second-year Industrial Design students to design new concepts that would make their fountain systems more beautiful when not in use. The students visited Crystal Fountains' headquarters to get a sense of the company's current products and designs and got to work, presenting nearly 100 ideas. Crystal Fountains explained aspects of design, manufacturing, product installation, and branding, making the students' already strong ideas even stronger. The student teams presented their designs in a formal slideshow, supported by detailed models. Four students designed the winning nozzle: Blume, which mimics flower petals opening and closing, giving the nozzle a visually pleasing shape when not in use.

“BEING ABLE TO WORK ON A PROJECT WITH THE RESEARCH OFFICE GAVE ME THE BEST HANDS-ON APPROACH TO LEARNING MY FIELD OF STUDY. NO COURSES PREPARED ME FOR MY FUTURE MORE THAN WORKING WITH CRYSTAL FOUNTAINS HAS.”

JACOB PRANGER
STUDENT, MECHANICAL ENGINEERING TECHNOLOGY

TESTING THE SPYRA DESIGN AT CRYSTAL FOUNTAINS INC.



PHOTO BY MICHELLE BOZZETTO

THE WINNING TEAM WITH THE BLUME NOZZLE

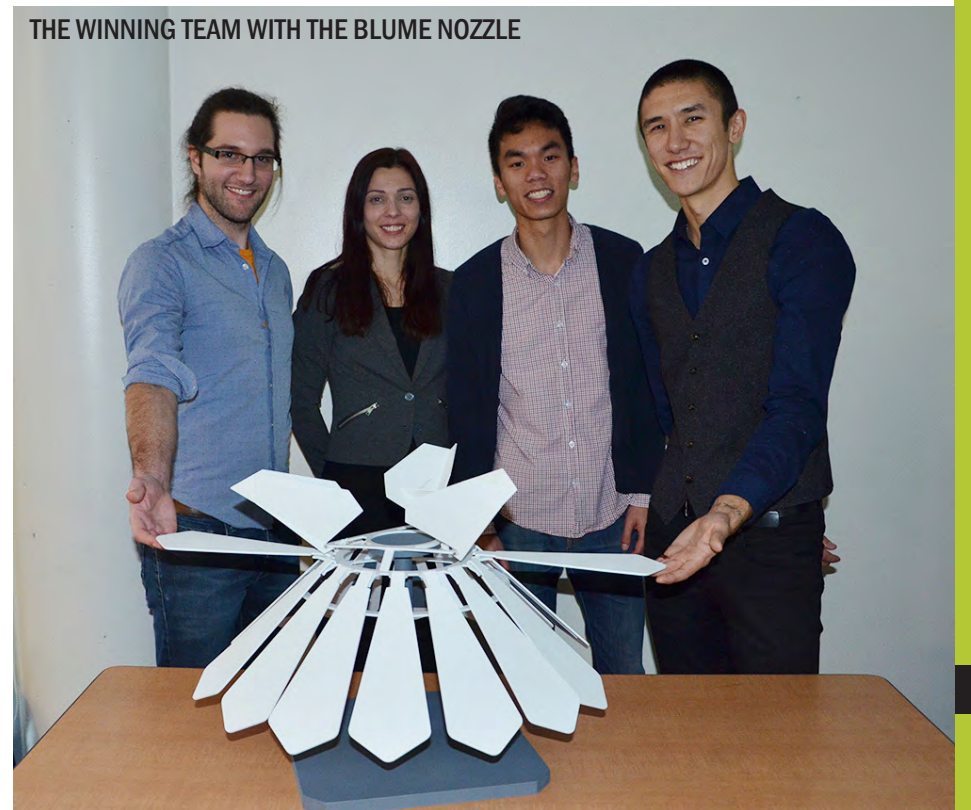




PHOTO BY BZHAR HARRIS

“THE HUMBER RESEARCH OFFICE INTRODUCED ME TO A COMPANY THAT WAS INTERESTED IN RESEARCH, AND WE FORMED A PARTNERSHIP.”

PEDRO SERRADOR
FACULTY, SCHOOL OF MEDIA STUDIES & INFORMATION TECHNOLOGY

UNDERSTANDING AGILE: AN IN-DEPTH ANALYSIS OF AGILE SUCCESS AND ITS DRIVERS

Partner : Info-Tech Research Group Inc.
Collaborators: Blaize Horner Reich and Andrew Gemino (Simon Fraser University)
Project lead: Pedro Serrador, School of Media Studies & Information Technology
Funder: NSERC, OCE
Students: Liang Guo, Melek Mullaoglu, Mithun Subramanya

In recent years, Info-Tech Research Group has seen client demand for content on Agile project management grow substantially. To address this challenge, Humber faculty member Pedro Serrador and a team of students designed and conducted a large-scale survey and performed in depth analysis on the global use of Agile and its efficacy. The project provided Info-Tech with the needed data to support their existing members and gain a competitive advantage: information about which Agile methodologies and techniques are most beneficial to organizations, when they work best, and how to implement them.

EXERCISE AND MENTAL HEALTH: A NEW APPROACH BASED ON AN ANCIENT PHILOSOPHY

Partner: Chrysalis Yoga , McMaster University, St. Joseph’s Hospital
Project lead: Laura Keating , Applied Research & Innovation
Co-Investigator: Joseph Gibbons, School of Hospitality, Recreation and Tourism
Funder: NSERC
Students: Brooke Burrows, Victoria Galletta, Elizabeth Glaiser, Sarah Hickman, Joanna Marra

The students working with Laura Keating on this project evaluated the impact of yoga on measures of physical and mental health. The students from the Exercise Science and Lifestyle Management post graduate program in the School of Hospitality, Recreation & Tourism conducted evaluations on adult participants aged 22 to 65 years who were either randomized to complete a 12-week yoga program or to be a non-exercising control. Assessments included cardiovascular fitness, feelings of stress, anxiety, depression, and learning and memory function. Participants in the yoga program reported improved symptoms related to stress and depression, as well as an improved sense of social support, compared to the control group.



PHOTO BY MICHELLE BOZZETTO



STUDENT BROOKE BURROWS ANALYZING THE PHYSICAL BENEFITS OF YOGA

PHOTO BY MICHELLE BOZZETTO



STUDENTS CONDUCTING A TEST ON THE EFFECTIVENESS OF BIOSTEEL'S SPORTS DRINK

PHOTO BY VICKY KAO

EFFECT OF CARBOHYDRATE-FREE SPORTS DRINK ON ANAEROBIC PERFORMANCE

Partner: BioSteel
Project lead: Mojgan Rezvani, School of Health Sciences
Funder: NSERC
Students: Stephanie Correa, Pegah Elahi, David Filiciani, Huda Hajjaj, Jonathan McNorgan, Jessica Prasher, Henry Quach, Ashley Rajan, Sandeep Saroya, David Sauriol, Sarah Schweter, Steven Spears

Under Mojgan's supervision, students in Humber's Fitness and Health Promotion, Kinesiology, and Research Analyst programs have partnered with BioSteel Sports Supplements Inc. to investigate the effect of a sugar-free sports drink on athletic performance. The study examines the effects of BioSteel's High Performance Sports Drink (HPSD) on the health and performance capacity of athletes who use it during highintensity exercise. The BioSteel research project maximized an opportunity to collaborate with a growing Canadian company and to provide our students with a unique opportunity to learn from elite researchers and apply their skills to sports science. Students from this project presented this work at the 2015 Ontario Exercise Physiology Conference and will receive formal recognition of the final manuscript in 2016.

MOTHERS IN MIND: TRAUMA-INFORMED APPROACHES TO SUPPORTING MOTHERS WHO HAVE EXPERIENCED VIOLENCE AND THEIR YOUNG CHILDREN

Partner: Child Development Institute (CDI)
Project lead: Josephine Mazzuca, School of Liberal Arts & Sciences
Funder: Humber Applied Research & Innovation
Students: Ayelet Aryl, Natalia Palacio, Chantal Ragoonanan

Partnering with Mothers in Mind, a mother and child program developed by CDI for mothers who have experienced trauma, Josephine Mazzuca and her team of students worked to understand how a trauma-informed approach to parenting intervention could support women who have experienced abuse and their young children. The team conducted in-depth qualitative interviews with women who have recently participated in the program in order to understand what impact participation in the program has on participants' parenting, relationships with their children, self-esteem, and social isolation.

CENTRE FOR TRANSFORMATIVE SOCIAL CHANGE

Partner: The Gatehouse
Project lead: Arthur Lockhart, School of Social & Community Services
Funder: Humber Applied Research & Innovation
Students: Skyler Davis, Stephanie Desrosiers, Diane Rafacz, Heidi Sasek

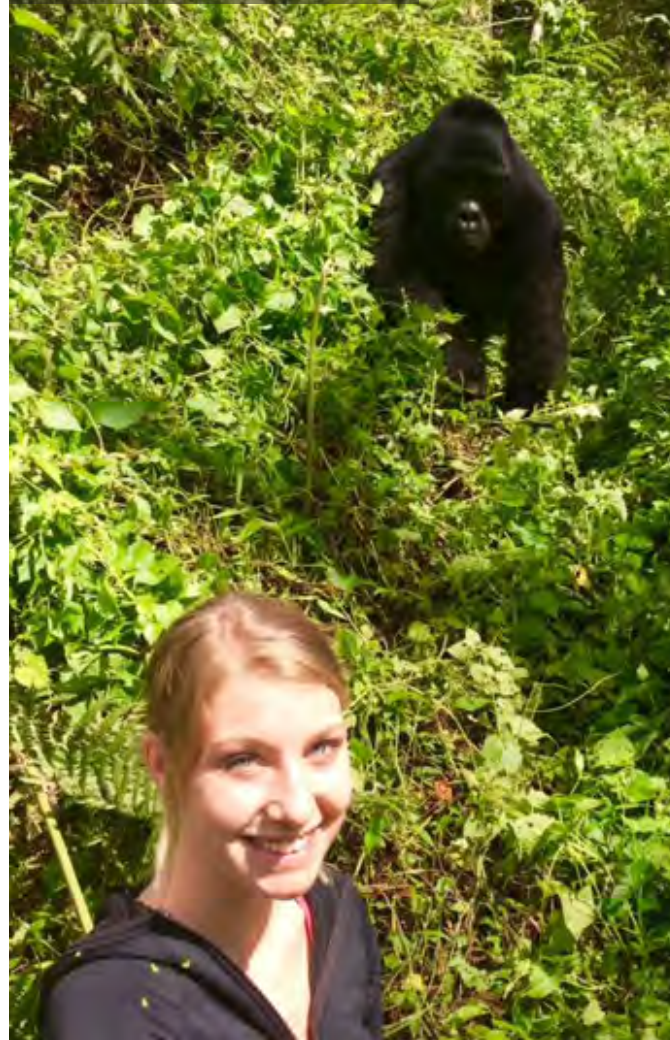
Arthur Lockhart and his team of students are committed to establishing a sustainable centre dedicated to supporting Transformative Social Change in student communities. The centre will provide a space outside a formal classroom setting for students, faculty of all disciplines, community members, agencies and activists to explore and engage matters of transformative learning and transformative social change in an inspiring, innovative, safe and supportive environment. The four focus areas of the centre are transformative justice, environmental justice, transformative pedagogies, and ethical subjectivity.



SYMPOSIUM FOR THE CENTRE OF TRANSFORMATIVE SOCIAL CHANGE

PHOTO BY MICHELLE BOZZETTO

GETTING UP CLOSE AND PERSONAL WITH THE GORILLAS



SHAPEFILE VIEWER

Partner: Discovery Air Environment
Project lead: Peter Wheeler, School of Applied Technology
Funder: Humber Applied Research & Innovation
Students: Leonardo DiGiacomo, Stephan Farr, Xi Gong, Quoc Phan, Eliseo Ramirez

The student team built a custom shapefile viewer application with wind speed and wind direction controls for partner Discovery Air Environment (DAE), integrating the viewer in an e-Agriculture appliance as part of the display functionality. The application can interpret pictures as soil, water, canopy cover, ground temperature, etc. and when provided as separate layers, the pictures can be layered onto a map. The team provided DAE with both desktop and mobile solutions creating a Microsoft viewer and an Apple iOS viewer. DAE is currently trialing the applications with their customers.

STUDENT TEAM EXPLORING THE TOURISM EXPERIENCE OF UGANDA



DEVELOPING PASSIVE HOUSE RESOURCES FOR THE BUILDING INDUSTRY

Partner: ON Passive House Group
Project lead: Dragos Paraschiv, School of Applied Technology
Funder: Humber Applied Research & Innovation
Students: Kathleen Agustin, Stefan Bedard, Chad Thurlow

During the first phase of this multi-phase project, students and faculty member Dragos Paraschiv developed a database and collected manufacturer/distributor technical data regarding sustainable products and services related to passive house buildings. The database will be used to identify industry partners for future research projects and support the design of Humber's sustainable building labs.

In a second phase, the team investigated different building envelope products by modelling their thermal performance in typical wall assembly structures in order to evaluate suitability for a Passive House building. The team conducted market research to identify archetypes, searched green building catalogues and developed an analysis procedure for integrating building materials within the selected archetypes. The results identified sources of impact on building component performance when products are integrated in various wall assembly structures. The thermal models will be saved in a resource database for typical building materials that can be accessed by students. Several archetypes of residential buildings will be modelled and presented to the building industry.

DOCUMENTING THE TOURISM EXPERIENCE IN UGANDA'S GORILLA HIGHLANDS

Partner: ADRIFT Adventures - Uganda
Project lead: Ryan Snider
Funder: Humber Applied Research & Innovation
Students: Tishana Allen, Erin Clarke, Megan Gougeon, Linda Holmes, Sarah John, Patel Roschan, Anastasia Tokareva

Ryan Snider and seven students traveled to Uganda to conduct field research on the motivations of international eco-tourists who trek through the Bwindi Impenetrable Forest in search of one of the world's two remaining populations of mountain gorillas. Using various statistical tests to analyze the survey data they collected, the students learned different research methodologies, and gained practical research skills. ADRIFT Adventures is interested in the students' findings as a tool for further promoting tourism in Uganda, as well as to better understand the tourism industry, so the team is discovering why ecotourists describe their treks through Ugandan the rainforest is referred to as 'life-changing' and 'transformative', and have submitted the study results to a peer reviewed journal.

STUDENT, STEPHEN FARR, ANALYZING THE SHAPEFILE VIEWER CODE

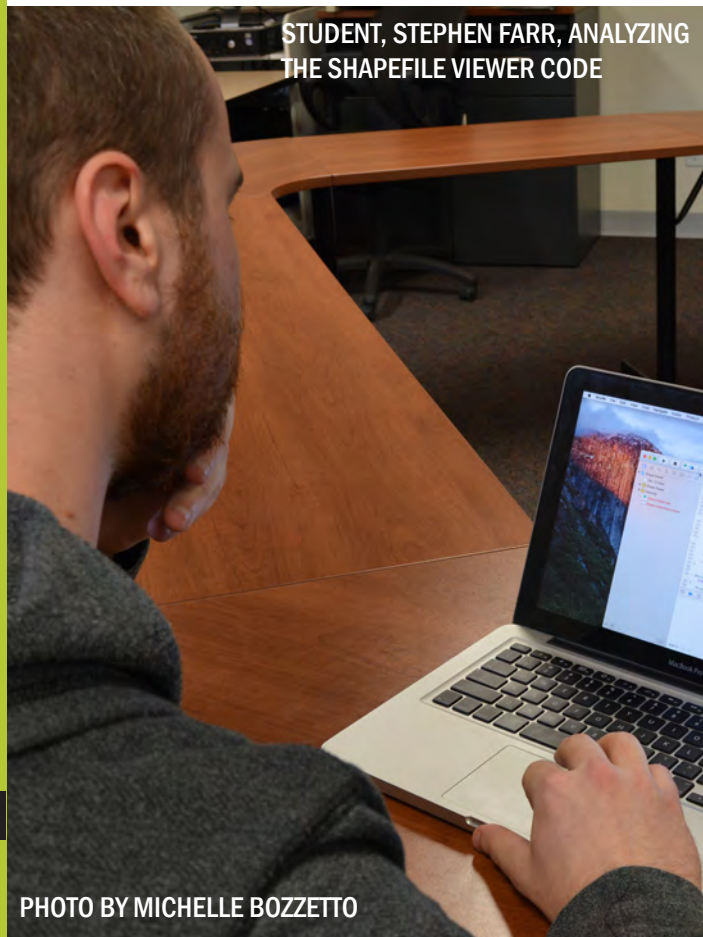
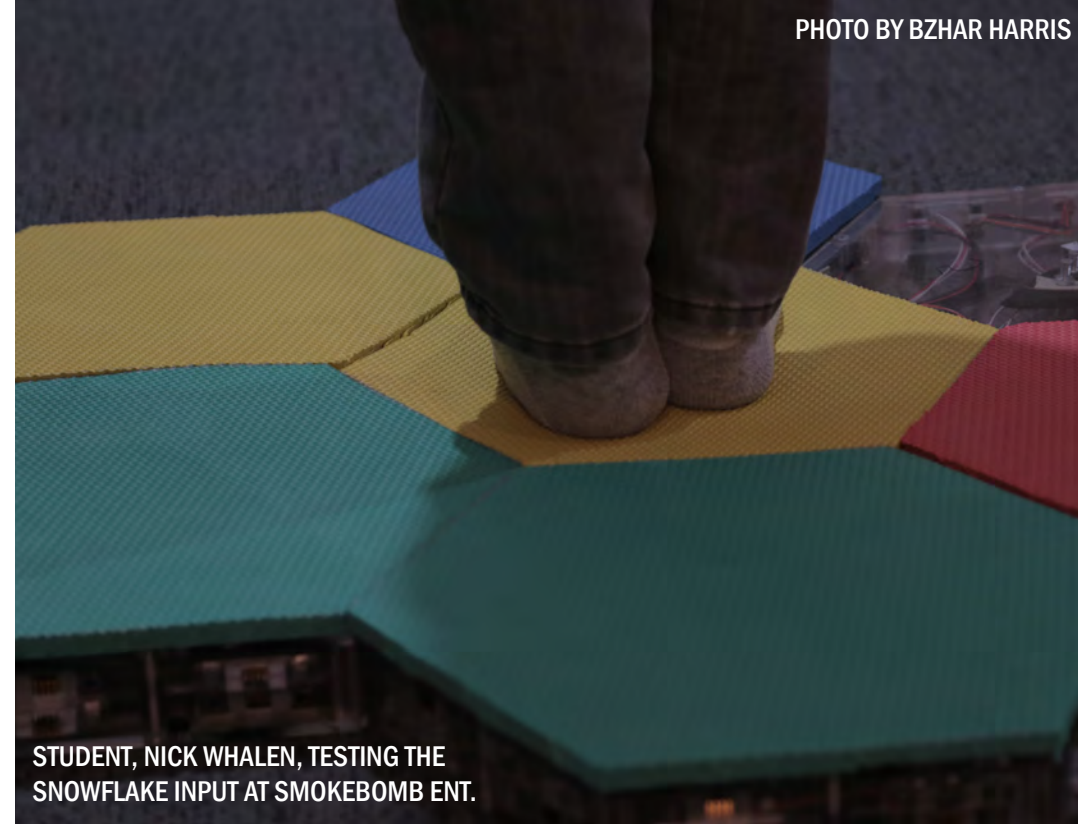


PHOTO BY MICHELLE BOZZETTO

The Canadian Marketing Association (CMA) partnered with Humber to study the emerging technology Augmented Reality (AR) and how it has transformed the business and marketing community, in both positive and negative ways. A substantial segment of consumers seem to be aware that augmented reality technology exists in retail locations and are willing to use it, but relatively few marketing managers appreciate its potential value as an advertising and information tool. The aim of the project was to identify how effective augmented reality technology is as a marketing and advertising tool in retail. Findings of the project were documented in a research article published in the Ivey Business Journal.

AUGMENTED REALITY EFFECTIVENESS: APPLYING AN INTERACTIVE TECHNOLOGY TO RETAIL MARKETING

Partner : Canadian Marketing Association
Project lead: Owen Parker, The Business School; Amanpreet Chhina, The Business School
Funder: Humber Applied Research & Innovation
Student: Michelle Conrad



STUDENT, NICK WHALEN, TESTING THE SNOWFLAKE INPUT AT SMOKEBOMB ENT.

A QUALITATIVE STUDY OF FEMALE GANG MEMBERS

Project lead: Mark Totten, School of Social & Community Services
Funder: Humber Applied Research & Innovation
Students: Mia Hershkowitz, Emily Stroebel, Stephanie Sulit, Brett Weltman

Little is known about all-female gangs or women who are in senior positions of male-dominated gangs. To change this, Mark Totten interviewed 41 female gang members about their experiences to gain knowledge about the structure and member roles in all-female gangs, the pathways into gangs for women, and the exit strategies of female gang members. Students transcribed the interviews and analyzed the resulting data; and the team co-authored a book chapter on racist socialization and gang involvement—the first research of its kind in Canada.



FACULTY LEAD, MARK TOTTEN

PHOTO BY MICHELLE BOZZETTO

THE POWER OF MUSIC: AN EXPLORATION OF THE IMPACT OF MUSIC ON AGING INDIVIDUALS WITH DEVELOPMENTAL DISABILITIES

Partner : Brampton Caledon Community Living
Project lead: Andrea Rutherford, School of Social & Community Services
Funder: Humber Applied Research & Innovation

The initial data transcription, analysis and review has highlighted that in fact, the use of iPods with aging individuals with developmental disabilities who also have diagnoses of Alzheimer’s Disease or Dementia is a beneficial additional intervention that has been reported by staff to reduce anxiety, calm and soothe individuals during stressful situations or emotional periods in their days and has even increased the ability for some individuals to sleep restfully throughout the night. Staff have also indicated that some of the individuals who are non-verbal have also been observed singing, humming and dancing to music that has moved them.

SNOWFLAKE GAME AND SYSTEM DEVELOPMENT

Partner: Smokebomb Entertainment
Project lead: Sarith Nugawila, School of Media Studies & Information Technology
Co-investigator: Kyle Brownell, School of Hospitality, Recreation & Tourism
Funder: Humber Applied Research & Innovation, OCE, NSERC
Students: James Finnie, Raymond Micheau, Nick Whelan

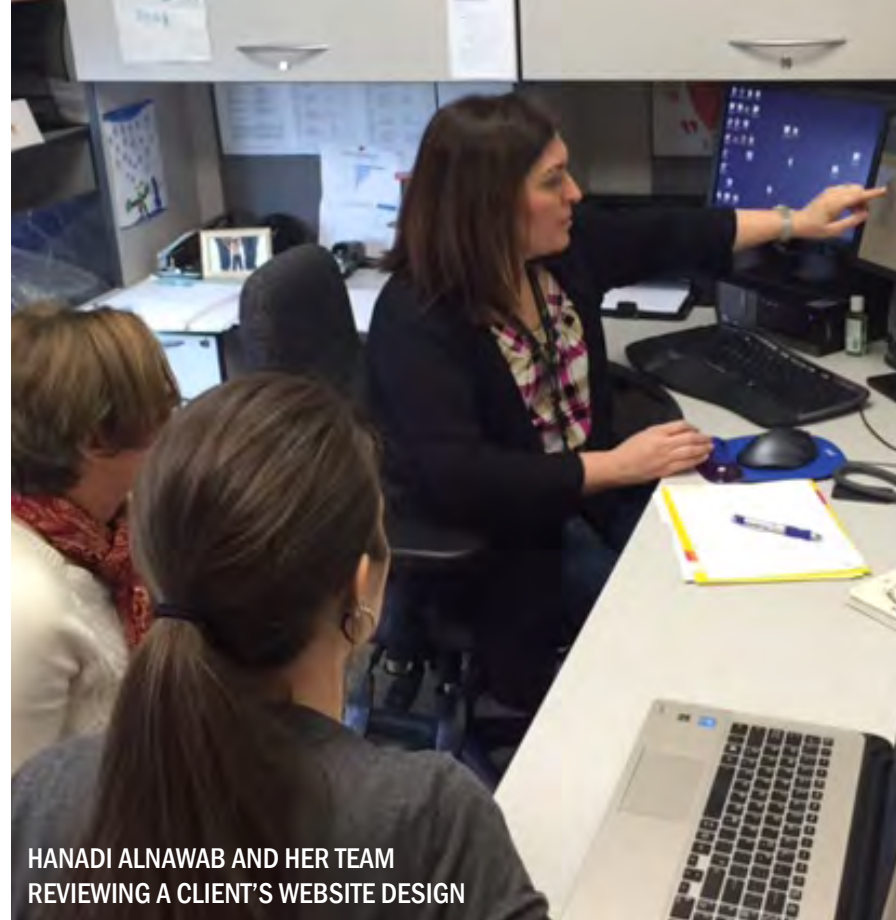
Smokebomb is expanding into the video game market and has developed a unique input device called Snowflake that consists of multiple pressure pads that the player can press using their feet and hands. Since games using such an input device do not exist, Smokebomb approached Humber to develop ideas and prototype games for their new product. The team of Game Programming students worked with faculty member Sarith Nugawila to develop two video game prototypes using unique game mechanics that function with the Snowflake input device.

“THE APPLIED RESEARCH IS A REALLY GOOD LEARNING EXPERIENCE, AND I COULD SEE MYSELF DOING IT A LOT MORE. IF PEOPLE WANTED TO TRY SOMETHING NEW, I WOULD DEFINITELY RECOMMEND THEY LOOK INTO IT.”

RAYMOND MICHEAU
 STUDENT, GAME PROGRAMMING

INFORMATION AND E-COMMERCE WEBSITES FOR SMALL BUSINESSES

Partners: Bezek Foundation, MPSG, REST Centre, Sigma Six, Up River Trading Co.
Project lead: Hanadi Alnawab, The Business School
Funder: OCE
Students: Racha Ayaso, Lyndsay Brooks, Jason Carlos, Rebecca Clement, Courtney Coon, Rahim Dhrolia, Chad Fernandez, Jeff Francis, Spencer Fu, Christine Hagen, Shyren Husham, Faria Islam, Shih-I Liu, Waruna Perera, Martin Perez, Savio Wong, Lara Yuzwa



HANADI ALNAWAB AND HER TEAM REVIEWING A CLIENT'S WEBSITE DESIGN

Five small businesses received vouchers to work with Hanadi Alnawab, Digital Business Management degree program coordinator, and a team of Humber students to design and develop websites that promote their businesses, which range from photography to home renovation to the non-profit sector. Alnawab's team brought together 17 students from The Business School and the School of Media Studies & Information Technology from programs such as Digital Business Management, Human Resources Management, Creative Advertising, Graphic Design, Creative Photography and Multimedia Design and Development. Together, they were a one-stop digital shop, creating websites supported by new logos, graphics, and photography--whatever the clients needed make their websites come alive. The students also helped set up social media accounts that best matched their clients' needs and interests, and created helpful user manuals, showing their clients step-by-step how to update and maintain their websites.

“THE STUDENTS FROM HUMBER ARE HERE FOR A REASON - THEY’RE VERY GOOD. THEY ARE VERY ENTHUSIASTIC AND THEY’RE ON THE EDGE OF WHAT IS NEW AND CURRENT IN THEIR FIELDS.”

**ROSANNE WARREN, PARTNER
BOARD MEMBER, BEZEK FOUNDATION**

For the complete list of research projects completed in 2015-16, visit our online report at humber.ca/research/annualreports2016



REB CHAIR, PAUL GRIFFIN
PHOTO BY MICHELLE BOZZETTO

**112
Projects
Approved**

**79
Active Course
Designations**

The Humber Research Ethics Board (REB) is responsible for reviewing the ethical acceptability of all research involving humans conducted by Humber faculty, staff or students, regardless of where the research is conducted, in accordance with the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans, 2014 (TCPS 2). The REB is also responsible for reviewing the ethical acceptability of research involving humans conducted by researchers external to the Humber community, if that research involves Humber faculty, staff or students as participants. The REB serves the Humber community as a consultative body, contributing to education in research ethics. The board meets monthly to conduct full reviews of applications presenting more than minimal risk and reviews minimal risk applications on a rolling basis. The Humber REB is composed of experts in different areas of research and practice coming from the Humber faculty and staff, as well as the external community.

-Dr. Paul Griffin,
Chair, Research Ethics Board

INTERNAL FUNDING PROGRAMS

Introducing new internal funding programs IGNITE and CULTIVATE in 2016!



The **Ignite Fund** supports Humber employees who are in the early stages of developing an innovation project and who demonstrate the intention to pursue long-term initiatives that align with Humber's strategic research and innovation priorities. Awarded on a rolling basis, Ignite provides up to \$5,000 in funding for a maximum of six months.

The **Cultivate Fund** supports Humber employees engaged in original, externally-focused applied research that allows employees to explore strategic innovation initiatives. Applications are peer-reviewed, ensuring transparent and equitable competition. There are three submission deadlines per year (October, February, and April), and recipients are provided up to \$20,000 for a maximum of twelve months.

Since launching internal funding programs in 2009, Applied Research & Innovation has supported:



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NEW PROJECTS THIS YEAR



ARI funding programs expand to include course release for full-time faculty members or equivalent for part-time faculty members

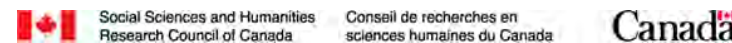
The following projects received internal funding from Humber College in 2015-16:

- Pamela Adams, "Increasing awareness in pandemic preparedness among nursing students"
- Andrew Ainsworth, "Talkabit app development"
- Vera Beletzan, "TESL methodology: a transferable teaching pedagogy in non-ESL classrooms"
- Diana Belshaw, "Developing an online resource for performers"
- Amanpreet Chhina, "Augmented reality effectiveness: applying an interactive technology to retail marketing"
- Denzil Desousa, "Developing active learning experiences within a wet lab environment"
- Janice Dundas, "When learning becomes a good fit: concurrent effects of exercise on memory in comparison to traditional quiet study and auditory stimulation during study"
- Dan Eng, "An investigation of storytelling educational games"
- Elizabeth Fenuta, "Passive house development"
- Colin Flint, "Advertising internship research"
- Greg Goralski, "Prototype and validation of an app to connect alumni to employment via professors"
- Paul Griffin, "Investor risk tolerance assessment research"
- Hassan Hassan, "Spyra mechanical design"
- Naveen Joshi, "Online connections: how students use online social networking at Humber"
- Marcin Kedzior, "Canopy cohousing research and design"
- Arthur Lockhart, "Centre for Transformative Social Change"
- Tara Maruzk, "Humber's Interpretive Centre: oral history about the Lakeshore Campus's natural and built heritage"
- Josephine Mazzuca, "Mothers in mind: parenting after trauma"
- Kristian Medri, "Underwater Communications"
- Hooman Nabovati, "Design and fabrication of printable strain sensors"
- Dragos Paraschiv, "Modelling building envelope components for passive house standard"
- Owen Parker, "Augmented reality effectiveness: applying an interactive technology to retail marketing"
- Robyn Plunkett, "Exploring the readiness and willingness of community agencies in assisting individuals living with dementia to optimize their health seeking behaviors"
- Heather Ramey, "Evaluating youth engagement in community organizations"
- Heather Snell, "Preliminary investigation into models of field work in child and youth care education in Canada"
- Ryan Snider, "Documenting the tourism experience in Uganda's gorilla highlands"
- Bryn Sumpton, "A series of case reports regarding the effect of massage therapy on sleep quality in veterans with PTSD"
- Iglino Teolis, "Examining the effect of deer browsing and soil compaction on forest regeneration"
- Mark Totten, "A qualitative study of female gang members"
- Anthony VanHoy, "Effects of pedagogical application of Wolfram demonstrations in a mathematics course"
- Peter Wheeler, "Shapefile viewer"
- Kathleen White-Williams, "A study exploring the challenges and facilitators of nursing faculty engagement in applied research in vocational or polytechnic institutions and the role of library services"
- Anne Zbitnew & Hillary Rexe, "Investigating inclusivity, accessibility, and universal design in Media Studies"

PARTNERS & FUNDERS

Advanced Photovoltaic Group
 Aspen Wildlife Sanctuary
 Bezek Foundation
 Biore
 Brampton Caledon Community Living
 Canadian Marketing Association
 Canopy Housing
 Castlemore Educational Services
 Centre of Excellence for Youth Engagement
 Centres on Health and Aging
 Child Development Institute
 Community Microskills Development Centre
 Council of Educators of Toronto
 Crystal Fountains
 DBA Papararty Gallery
 Etobicoke & Scarborough Baseball Association
 Fresh City Farms
 Hassell Trial Counsel
 Holland Bloorview Kids Rehabilitation Hospital
 Info-Tech Research Group
 Keysight
 LAMP Community Health Centre
 Livera Sports Inc.
 Longos
 Madonna Catholic Secondary School
 Markham Board of Trade
 MSPG Inc.
 Nascent Digital
 ON Passive House Group
 Ontario Council of Agencies Serving Immigrants
 Ontario Police Association
 Ontario Research Coalition of Research Institutes
 PaparARTzy
 PlansPlus Inc.
 REST Centre
 RHSP Consulting

Rotary International Youth Exchange
 District 7010
 Safe City Mississauga
 Sapient Nitro
 Seniors' Health Knowledge Network
 Shaftesbury Tech Inc.
 SickKids Foundation
 Sigma Six
 Sparks Events
 Students' Commission
 Sutherland-Chan Clinic Inc.
 TJX
 Technical Standards and Safety Authority
 Toronto and Region Conservation Authority
 University of Toronto
 Up River Trading Co. Ltd.
 Urban Arts
 Urban Poling Inc.
 Vanier Institute for Women
 York University



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PHOTO BY MICHELLE BOZZETTO

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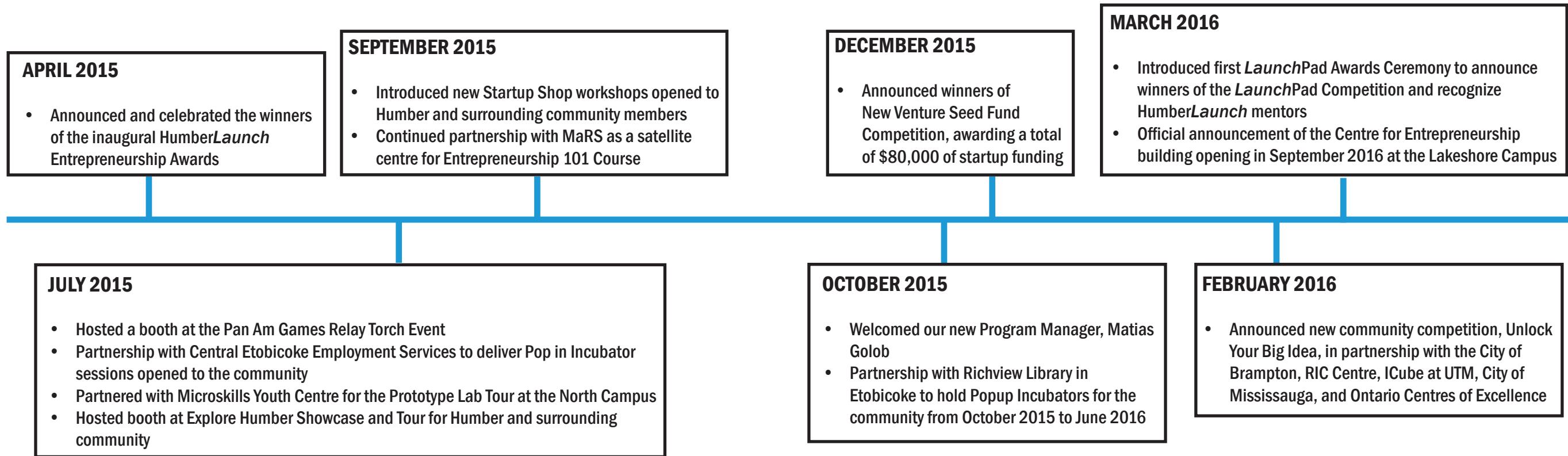
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**WE ARE
GETTING IDEAS
OFF THE GROUND**



HUMBERLAUNCH
A YEAR IN REVIEW | 2015-2016

QUICK FACTS



62
ACTIVE MEMBERS

41
ACTIVE BUSINESSES

6000+ likes

29 events
1093 tickets sold

1500+ followers
340 mentions
340 retweets

52 videos
2300 views

WHAT'S INSIDE

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- Mentors (p.5)
- New Venture Seed Fund (p.6)
- LaunchPad (p.8)
- Events (p.10)
- Startup Awards (p.11)
- Community Outreach (p.12)
- Partners (p.13)

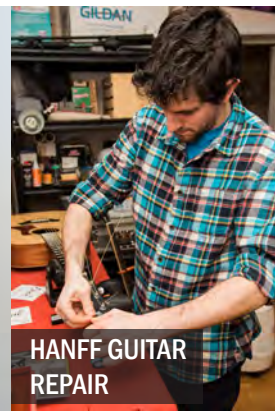
Credits

Cover Image by Rasha Ayaso, Creative Photography Student
 Graphic Design by Michelle Bozzetto, Media Communications Assistant
 Content & Editing, by Michelle Bozzetto, Media Communications Assistant

MEMBERS

Alien's Guide to Earth	FIT	Sara Heathfield
Ansik Inc.	Gig	SoundStill Productions
Aphotic Couture	Hanff Guitar Repair	Starting Point
Aqua Greens	Headquarters Cooperative	Swing-Rite
Bahra Strength	Herb Communications	Team Octopus Productions
Baru Life	Jobficient	The Collectors Inc.
Boqs	Loving Support Services	The Vault
Butter Skin	Medici	Toronto Undergraduate
Clean Car Clean	Monarch	Jazz Festival
De-Clutter with Coco	Muamer Dajdic	Undivided
Dsyk. Music	Possibly with Dynamite	WiPit
Embr Events	Premium Near Beer	Working for Full Bellies
Energize the Earth	Rent4Students	
EqualEyez Music	R.E.S.T. Centres	
Exclusive Dry Cleaners	Rockit	

DE-CLUTTER WITH COCO



HANFF GUITAR REPAIR



MEDICI

Winners of this year's *LaunchPad* and New Venture Seed Fund, De-Clutter with Coco aims to bring their organized touch to those who envision a minimalistic Pinterest perfect home, but have no idea to achieve it. Faria Islam and Courtney Coon, graduates from Humber's Business School, teamed up after seeing the results in helping de-clutter people's homes. Their goal is to help people make their lives easier so that they can spend time on the things and people they love, rather than the mess in their home.

The next step for De-Clutter with Coco is reaching out to condo owners in the Liberty Village area and analyzing the market response in order to validate their idea. "We're focusing on the condo market because this audience is looking to create space as they move into these premium condos," said Faria, Co-Founder, De-Clutter with Coco.

In the future De-Clutter with Coco hopes to grow their employee base and even empower other *de-clutterers* to start their own businesses through franchising options; for now, the team aims to declutter a minimum of 50 spaces, start their marketing efforts through online and video advertising, as well as participate in the National Home Show.

MENTORS



Kevin Smith's devotion to helping entrepreneurs grow is apparent. Whether he is mentoring a startup or facilitating a workshop, he is constantly making a difference in the HumberLaunch community. His pitching workshops are always upbeat and interactive, with entrepreneurs gaining a clearer understanding of how to craft their company's story and make it appealing to potential investors. His current work with Medici, a *LaunchPad* semi-finalist company, has helped team members gain another perspective on their direction and growth moving forward. Kevin Smith's motivation to help other companies succeed came from his own experiences as a prospective entrepreneur 20+ years ago. Back then there was very little help to start a business in the way of mentorship. Therefore, Kevin learned through trial and error working with startups while employed by a Fortune 50 Tech Company, as well as from launching his own venture, The Story Architect. Now, Kevin uses his knowledge to help companies navigate common growing pains and contributes his expertise as a mentor to members of the HumberLaunch program.

HUMBER FACULTY

Elizabeth Fenuta, School of Applied Technology
 Mark Stoiko, The Business School
 Steve Bang, The Business School
 Christopher Dunsmuir, The Business School
 Brad Herd, The Business School
 Mark Farber, The Business School
 Anne Frost, School of Creative and Performing Arts

INDUSTRY MENTORS

Mike Hook, Intrepid Law
 Olufemi Adegun, CFEL
 Kevin Smith, The Story Architect
 Stephen Eiler, Plan to Prosper
 Patti Pokorchak, Small Biz Sales Coach
 Sandeep Goyal, Retired
 Joseph Breitner, Retired

NEW VENTURE SEED FUND

Humber's New Venture Seed Fund provides up to \$10,000 of start-up capital, on a competitive basis, to businesses founded by Humber students and alumni. Since 2010, the fund has provided support to over 33 new businesses to build on their innovative ideas.

The New Venture Seed Fund seeks applications in the fall of each year. Selection criteria include quality and completeness of a business plan, creativity, capacity for generating employment, potential for sustainability, and applicants' academic record. This year the fund made awards to seven new businesses.

“I THINK IT’S GREAT – IT’S NOT ONLY A COMPETITION BUT A LEARNING EXPERIENCE. SO YOU’LL EITHER GET GRANT MONEY, OR YOU’LL LEARN SOMETHING ABOUT HOW TO PITCH A BUSINESS, OR IF YOU’RE REALLY LUCKY YOU’LL GET BOTH. IT’S A WIN-WIN-WIN.”

SARA HEATHFIELD ENTREPRENEUR

NEW VENTURE SEED FUND JUDGES:

Peter Madott – Humber – Business School

Kyle Plunkett – Borden Ladner Gervais LLP

Nabil Dhirani – Wakulat Dhirani LLP

Julian Sanchez – Business Development Bank of Canada

Josh Cherun – S&C Electric Canada

Robert Wakulat – Wakulat Dhirani LLP

Kevin Arnsdorf – Humber – School of HRT

Warren Ragoonanan – Gardiner Miller Arnold LLP



NEW VENTURE SEED FUND WINNERS

PHOTO BY SAMMY SI-CONG LO

Sara Heathfield – Sara Heathfield (\$9,000 – NVSF; \$20,000 – LaunchPad)

Sara Heathfield is a lifestyle brand that is dedicated to selling artwork printed onto fashion accessories, such as phone cases, scarves, and umbrellas. Sara is a graduate from the School of Media Studies & Information Technology.

Seerlee Archer and Shanice Romelus – Undivided (\$8,000)

Undivided is an online merchant of unique undergarments and clothing that serves as a shop for both men and women. Seerlee and Shanice are planning on manufacturing and selling the merchandise. Seerlee and Shanice are graduates of the Business School.

Muamer Dajdic – Muamer: Healthy Living

Muamer is the author of a book that discusses his experience of losing over 200 pounds and his views on healthy living. He wants to use this book as an accessory as he pursues motivational speaking. Muamer is a Business School graduate.

Katie VanderLaan and Serean Bechara – Aphotic Couture (\$9,000)

Aphotic Couture is a designer and producer of luxury avant-garde headpieces and millinery (hats). Katie studied in the Business School.

Courtney Coon and Faria Islam – De-Clutter With Coco (\$9,000)

De-Clutter With Coco is a service that helps its clients de-clutter their living spaces with the intention of leading a productive lifestyle and developing good “clutter-free” habits. Courtney and Faria are both Graduates of the Business School.

Josh Hanff – Hanff Guitar Repair (\$8,000)

Hanff Guitar Repair is a stringed instrument repair shop that has been in operation since 2011. He has been mainly focusing on Humber's community of musicians and now intends on expanding the reach of his business to the rest of Etobicoke. Josh studied music in the School of Creative and Performing Arts.

Mark Delisi and Kevin Gillis – Medici (\$9,000)

Medici is a Toronto clothing company that seeks to discover, showcase, and support local artists (visual, musical, etc). Kevin is a SCAPA graduate and Mark is studying Creative Advertising.

LAUNCHPAD

The *LaunchPad* competition was introduced four years ago to promote commercialization and economic development. Since then, *LaunchPad* has awarded a total of \$160,000 to 21 new startups.

In 2016, the competition received 30 applications from Humber student and alumni entrepreneurs. Applicants were narrowed down to 12 semi-finalists who attended two speed-pitching events. At each event, the entrepreneurs pitched their business ideas to a variety of coaches who offered feedback and assistance to each team. Based on the coaches' feedback and other criteria, the finalists were chosen and advanced to the final *LaunchPad* event where they pitched their ideas to a panel of judges for a share of \$40,000.

New to 2016 was the *LaunchPad* Awards Ceremony held on Tuesday, March 29th at the Assembly Hall. The ceremony was used to showcase our Humber*Launch* members, as well as our *LaunchPad* finalists. We were joined by Humber College's President & CEO, Dr. Chris Whitaker; Senior VP of Academic, Laurie Rancourt; Associate Vice President Academic, Gina Antonacci; and City Counsellor Iqra Khalid to hand out awards and recognize the efforts of our finalists throughout the competition.

PHOTO BY MICHELLE BOZZETTO



LAUNCHPAD FINALISTS

29 APPLICANTS, 2 WINNERS

2015-2016

Winners

Business: De-Clutter with Coco

Team: Courtney Coon, Faria Islam

Amount Awarded: \$20,000

Description: De-cluttering services offered to houses and condos

Business: Sara Heathfield

Team: Sara Heathfield

Amount Awarded: \$20,000

Description: Art turned into wearable accessories such as umbrellas, phone cases and scarves

Runners-up

Business: Alien's Guide to Earth

Team: Jonathan Pereira and Layla Azmoudeh-Tosifi

Description: Webisodes aimed at teaching science to young females

Business: Medici

Team: Mark Delisi, Kevin Gillis, Trent McGibbon and Graham Pyper

Description: Company promoting local artists through shows and clothing

Business: The Vault

Team: Alyse Zorn and Elena Cattalani

Description: Mobile fashion truck

Business: Toronto Undergraduate Jazz Festival

Team: David M.J. Lee, Corey Clark, Chris Romano, Anastasia Tokareva and Becky Hargreaves

Description: Annual jazz festival held in Toronto to promote undergraduate musicians

Final Round Judges

Nicole Almond - President, Enactus Canada

Pam Banks - Executive Director, Mississauga

RIC Centre

Brenda Hogan - Senior Investment Manager,

Ontario Capital Growth Corporation

Laura Yu - Business Development Manager,

Ontario Centres of Excellence

JUDGES: PAM BANKS, NICOLE ALMOND, BRENDA HOGAN, LAURA YU



PHOTO BY MICHELLE BOZZETTO

EVENTS



HumberLaunch celebrated the Pan Am torch relay on July 6th, 2015. Humber College was proud to host the Pan Am Flame! Pan Am Organizers reported that Humber's celebration was a great event with an estimated 2400 attendees.

PHOTO BY SAMMY SI-CONG LO

65
Workshops & Events
1000+
Attendees

HumberLaunch runs workshops led by Humber professors, mentors, and industry professionals who have plenty of experience in their given field. In addition, we offer HumberLaunch members networking opportunities, entry into tradeshow, mentorship, funding opportunities and support. In 2015-2016, HumberLaunch has held 65 workshops and events for the Humber and surrounding community, with over 1000 entrepreneurs in attendance.

Our on-campus workshop series, **Startup Shop**, are aimed at entrepreneurs in the ideation and startup phases, and provide the important skills and knowledge required to launch a successful business. All our workshops are offered free of charge for all entrepreneurs both internal and external to Humber College. We offer a wide range of topics on entrepreneurship, including creative ideation, financial management, elevator pitches, business law and marketing.

STARTUP AWARDS

HumberLaunch Goes to Ottawa!

Regional Startup Canada Awards 2015

On November 17th, 2015, Matias Golob and Bram Cherun flew to Ottawa on behalf of the HumberLaunch team to accept the Startup Canada award for Entrepreneurial Support. The Startup Canada awards acknowledge organizations across Canada that are working to advance and support entrepreneurship. HumberLaunch was extremely honoured to receive this award as it provided the organization with validation for the hard work and strong efforts that it has put in over the last year.

This visit wasn't only about showing up to receive an award. This celebration provided HumberLaunch with a platform to stand on to communicate its vision, to discuss its place in the GTA startup community, and to reach out to a large number of other organizations looking to have similarly positive impacts on their own communities.

This event showed that the startup community really does embody the idea of community. It showed the commitment put forth by so many organizations across Canada to elevate entrepreneurship nationwide.



HUMBERLAUNCH TEAM: BRAM CHERUN, MARIA PLAZAS, SAMMY SI-CONG LO, MARISA TOMASSI, TERRENCE FREEMAN, FERDINAND NGO, MATIAS GOLOB, EDOU HILVERDA

COMMUNITY OUTREACH

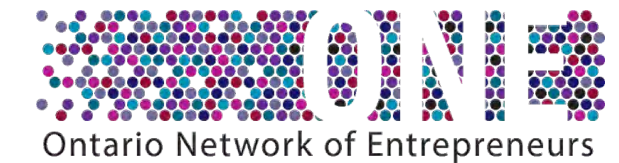
HumberLaunch continued its community outreach initiative – introduced in 2014 – by partnering with Toronto Public Library’s Richview branch for the **Pop-Up Incubator** series. This monthly series began in October 2015 and will run until October of 2016. Industry professionals are brought in to facilitate hands-on workshops that help community participants develop business models, utilize social media, market their brands, and pitch their business concepts.

This year, the Ontario Network of Entrepreneurs (ONE) Partners in Peel collaborated on a very exciting initiative, the **Unlock Your Big Idea** pitch competition. HumberLaunch, ICUBE, Mississauga RIC Centre, and representatives of the cities of Mississauga and Brampton came together to plan this competition, which had western GTA startups competing for a share of over \$60,000 in seed funding.

The finalists for the four categories (Best Innovation for Tech Business, Best Disruptive Innovation, Best Innovation for Small Business, and Best “Investment Ready” Business) pitched to a panel of judges in April 2016. Successful candidates will then go on to work with one of the Peel ONE partners to further validate and grow their businesses.



PARTNERS



UNLOCK YOUR BIG IDEA WINNERS AND JUDGES

PHOTO BY SAMMY SI-CONG LO