The MakerSpace Challenge: The Reinventing of the Hackathon to Further Student Engagement and Promote Library Services

Presented by:
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UTSC Library Makerspace http://utsccommons.utoronto.ca/fall-2016/annotation/utsc-library-maker-space
Presenters

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Librarian, University of Toronto

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Data Librarian, Ryerson University

Bill Chau
Manager, Finance and Trading Lab, University of Toronto
Overview

1. Introduction
2. Concept Development and Goals
3. Building Partnerships and Event Details
4. Execution, Results, and Feedback
University of Toronto (Scarborough Campus)

UTSC is one of three University of Toronto Campus, located in the Eastern GTA.

Within the tri-campus system, UTSC has earned the reputation of being the place for innovative students seeking real-world experience. UTSC offers over 180 undergraduate and graduate programs in business, arts and science.
Library Makerspace

- Makerspace under the library umbrella:
  - Having the Makerspace in the library means unlimited access to makerspace students might not always have
    - Other institutions limit Makerspace access to specific programs or groups of students
    - Encourage students to come to the library
    - Able to promote other information resources alongside
UTSC Library Makerspace
Concept development

Building on the success of the 2016 UTSC FinanceHacks, the working group are looking to expand the program to reach students from all disciplines.

The Sustainable Makers Challenge served 3 purposes:

1. Offering interdisciplinary and experiential learning opportunities to our students.
2. Educating and promoting the concept of sustainable development to students.
3. Promoting academic research and information literacy skills through library services.
Event Goals

- Makerspace promotion - Check out this new and exciting library resource!!
- Encourage and incorporate information literacy skills and active learning
- Bring students together from different academic disciplines - unique opportunity to collaborate
- Give students opportunity for interprofessional education
- Promote the United Nations Sustainable Development Goals
Sustainable Development Goals (SDGs)
Partnerships and Collaborations

- Call for volunteers
  - Planning team consisted of 2 Library Staff, 2 Technicians, 2 Librarians, 2 Student reps, and 2 members of the Sustainability Office
  - Planning team met bi-weekly

- Identified a list of essential partners
  - Faculty/Staff
  - Mentors
  - Sustainability Office
  - The Hub

- Created contact list and assigned contacts to group members
  - Created targeted material to share with potential partners
Building Partnerships

- **Liaison Librarians**
  - Asked to contact their faculty - encouraged as a way to build stronger relationship with their faculty.

- **Planning committee**
  - The committee reached out to faculty and staff they had relationships with
  - Reached out to Alumni as well as people from external industries
Building Partnerships

The Sustainability Office

Established in May 2007, the Sustainability Office takes a lead role in helping U of T Scarborough achieve its sustainability ambitions. They work with students, staff, and faculty to provide a forum for exchanging ideas, create awareness of the need for sustainable practices, and provide resources on sustainable work and lifestyle choices.
Building Partnerships

The Hub

The Hub is a government funded campus-linked accelerator, where student company founders create and launch new products, services, and business startups. Student entrepreneurs in The Hub work with faculty, experienced coaches and mentors, guiding them in best practices of early-stage entrepreneurship.
Building Partnerships

- Getting faculty buy-in
  - How does this benefit faculty and their students?
    - Unique learning opportunity involving teamwork and real world applications
  - Course integration
    - Using challenge as an option for an assignment - Prof. Leslie Chan used as an option for an assignment for IDSC08 - Media and Development - Critical Development Studies
Student Groups and Buy-in

● Student groups and partners
  ○ Promotion
  ○ Planning assistance

● Social justice issues

● Experiential learning

● Applying academic skills to real world issues
Student Groups and Buy-in

The Co-Curricular Record Designation (CCR):

- Designed to help students find opportunities at U of T beyond the classroom and to have their skills and experiences captured on an official document.
- Aimed to get CCR certification to drive student interest and reward students for their hard work.
Event Funding

- Budget was based on an estimate of 50 participants and 20 guests/volunteers
  - Included food for first and last day, prizes, and gifts for volunteers
- Event was approved by Chief Librarian after a few revisions.
  - Library approved $1,500 of the $3,500 budget request.
  - Additional funds of $2,000.00 were covered by The Hub (campus entrepreneurship incubator and The Sustainability Office)

Original proposed budget was $3,500.00 CAD (approx. 2,700 USD)

Final cost ended up being $3,345.00 CAD (approx. 2,600 USD)
Breakdown of Event Expenses

- Food: 55%
- Facilities: 12%
- Thank you gifts: 12%
- Printing: 6%
- Photographer: 4%
- Website hosting: 2%
- Buttons: 6%
- Parking: 2%
- Certificates: 1%
Event Promotion

- Social Media
  - Library, The Hub, The Sustainability Office
    - Twitter, Facebook, Instagram
- Campus digital screens
- Student listserv
- In-cass announcements
- Posters

The UTSC Library Makerspace presents:
The UTSC Sustainability MAKER CHALLENGE
A Next-Gen Hackathon at the University of Toronto Scarborough
February 17 - 27, 2017
Select 1 of 17 UN Sustainable Development Goals
Envision how the maker philosophy can help you achieve it
Bring your vision to life in the UTSC Library Makerspace
For more information and to register:
www.utschackathon.ca
Research Resources

- Students were provided with:
  - Literature sources
    - Focused around using library databases and libguides
    - SDG resources
  - Data Sources
    - Examples such as UNData, FAOSTAT, The World Bank World Development Indicators databank were provided
  - During the challenge, Librarians were scheduled shifts in the Makerspace to help students with research inquiries
Learning Outcomes

● Research as Inquiry
● Searching as Strategic Exploration
● Information Creation as a Process
Unique Learning Opportunities

Teams made up of students from different academic disciplines and backgrounds

52 Students
10 Disciplines
11 Teams
Unique Learning Opportunities

**Industry Mentors** - Each group had the opportunity to work with a mentor from an outside industry. Mentors were assigned based on their field.

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<thead>
<tr>
<th>Company/Organization</th>
<th>Title</th>
<th>Name</th>
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<tbody>
<tr>
<td>Chartwells Canada</td>
<td>Manager of Campus Engagement &amp; Sustainability</td>
<td>Jana Vodicka</td>
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<tr>
<td>City of Toronto</td>
<td>Manager, Social Research and Information Management Unit</td>
<td>Harvey Low</td>
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<td>Dillon Consulting Ltd</td>
<td>Planner</td>
<td>Zahra Jaffer</td>
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<td>East Scarborough Storefront</td>
<td>Community and University Partnership Specialist</td>
<td>Karen Cook</td>
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<td>Fleming College</td>
<td>Sustainability Coordinator, Sustainability Office</td>
<td>Tania Clerac</td>
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<td>Fleming College</td>
<td>Academic Lead, Sustainability Office</td>
<td>Trish O'Connor</td>
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<td>Futurpreneur Canada</td>
<td>Client Relationship Manager</td>
<td>Philippe Chiassion</td>
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<tr>
<td>GM Canada</td>
<td>Sustainability Programs Manager</td>
<td>Simon Guan</td>
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Running the Event Over a 10 Day Period - (over Reading Week)

Launch Day - Participants learn about the topic, how to safely use makerspace and to conduct research
Running the Event Over a 10 Day Period - (over Reading Week)

Launch Day - Team formation
Running the Event Over a 10 Day Period - (over Reading Week)

Working Days (Day 2 - Day 9)
Students access to makerspace as well as help from mentors and library staff
Demo Day (Day 10)
All students presented their project on Demo Day. Everyone provided with food and fun!
Demo Day (Day 10)
All students presented their project on Demo Day. Everyone provided with food and fun!
Other notable projects
Judging Criteria

Research (20%) - Shows research was done to support the proposed solution including theories and issues surrounding their SDG

Feasibility (30%) - demonstrates design is feasible/applicable for the chosen SDG with explanation of how they conceived, modified their design

Makerness (30%) - demonstrates unique problem solving related to their SDG - demonstrates collaborative process - identifies any resources used in creating their solution

Presentation (10%) - presents ideas in a clear fashion that engages their audience - demonstrates steps in design and implementation of their solution
What did you like most about the event?

<table>
<thead>
<tr>
<th>Liked</th>
<th>Student Response</th>
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<tbody>
<tr>
<td>CCR</td>
<td>1</td>
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<td>Event timing</td>
<td>1</td>
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<tr>
<td>The Hub</td>
<td>1</td>
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<tr>
<td>Food</td>
<td>2</td>
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<td>New Skills</td>
<td>2</td>
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<td>Supportive or Enthusiastic Environment</td>
<td>2</td>
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<tr>
<td>The Final Projects</td>
<td>2</td>
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<tr>
<td>Winning</td>
<td>2</td>
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<tr>
<td>Event Organizers/Organization</td>
<td>3</td>
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<td>Mentors</td>
<td>4</td>
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<td>Sustainability Theme</td>
<td>4</td>
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<tr>
<td>Makerspace</td>
<td>7</td>
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<tr>
<td>Project Freedom/ Creativity</td>
<td>8</td>
</tr>
<tr>
<td>The Team</td>
<td>14</td>
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Students responses represent multiple themes. 54 liked aspects derived from 42 student responses.
“I liked that the event gave passionate students the opportunity to come together to work on something that showcases their creativity and knowledge.”

“The things that I liked about the event is that it brought a challenge that sparked our imagination to further build and push to further life and innovation. It created a challenge that is not only limited to the event but to real aspects of life as well”
Student Feedback

“I enjoyed meeting people from other disciplines and to acquire experience with different technologies offered during the event, especially the 3D printer.”

“I enjoyed meeting people from other disciplines and to acquire experience with different technologies offered during the event, especially the 3D printer.

“The great opportunities to figure out sustainability-related problems and discuss with the professional. Also we have the chance to use 3D printer, which was super cool.”
“I liked being able to work on a project that I came up with on my own- rather than having something assigned to me, and having full responsibility over it. It was a complete divergence from traditional `school` but I ended up learning so much, especially stuff outside of my discipline. I also used a lot of the skills from within my major in new and exciting contexts. For example, synthesizing research about international development when I`m from a policy background.”
Challenges in Event Planning

- Student signups
- Enough diversity across disciplines
- Commitment of faculty and industry mentors
- Student dedication and commitment to project
Takeaways

- The collaboration is what made the event successful.
- The demand is there, students are looking for opportunities to learn through working together on something new, even if it may be out of their comfort zone.
- The library plays a central and critical role in leading the initiative, connecting different departments and the community.
- New librarian position - Entrepreneurship librarian
Questions?
Want more info? Email us! Jessica.Hanley@utoronto.ca OR Bill.Chau@utoronto.ca

http://www.utschackathon.ca/