June 24-26, 2016
Ottawa, Canada

Event Report

In this report

From the Organizers

Dear Participants, Sponsors and Friends,

Congratulations and a huge thank you to all of you for a great weekend – it was a weekend to remember. This was Ottawa's fifth Random Hacks of Kindness and we had an awesome time getting to know each of you and seeing your very impressive progress throughout the weekend.

We had a ton of fun and were blown away with your results. Congratulations on your presentations and all of your hard work.

We couldn't have done any of this without the participants, our amazing sponsors, the great venue, and rock-solid volunteers. This was a great Random Hacks of Kindness and we really appreciate it.

Until next time,

Brett and Brandon.

About

Random Hacks of Kindness (RHoK) Ottawa is part of a global movement that that brings together problem solvers, creative thinkers, and technologists for a hackathon weekend. Over the course of the weekend, teams of volunteers bring their creative, technical, and problem-solving know-how to tackle and solve some of the challenges faced by charities, not-for-profits, and civic organizations.

TECH4GOOD OTTAWA

Starting in 2016, RHoK became a project of Tech4Good Ottawa. Tech4Good Ottawa is a community of professionals aiming to create the go-to community of practice in Ottawa for charities and technology to collide. We bring both these groups together and give them more ways to learn from one another. We help charities use technology to the max. RHoK is a good extension of the vision of Tech4Good Ottawa.

RHOK ORGANIZERS

- Brett Tackaberry, Technical Director at bv02, Organizer at Tech4Good Ottawa
- Brandon Brule, Web Developer at Canadian Bank Note

HISTORY

- June 2015: RHOK #4 was hosted at Kivuto and chaired by Wesley Ellis and Brett Tackaberry. Supported by Brandon Brule, Maria Smirnoff, Jesse Burscik, Anton McConnville.
- June 2014: RHOK #3 was hosted again at Shopify and chaired by Wesley Ellis and Brett Tackaberry. Supported by Brandon Brule, Lisa Larochelle, Jesse Burscik.
- December 2013: RHoK #2 was hosted again at Shopify and chaired by Wesley Ellis. Co-organizers were Brett Tackaberry, Liz MacDonald, Christian Garceau, Brandon Brule.
- June 2013: Inaugural RHoK Ottawa hosted at Shopify and chaired by Jack Noppé and Wesley Ellis.

THIS WEBSITE

This website is a very slight adaptation from the theme found here: https://github.com/thephuse/hackathon-wordpress-theme.

This WordPress theme was originally developed for National Day of Civic Hacking 2014.

Sponsors

Main Sponsor

Kinaxis® is a leading provider of cloud-based subscription software that enables our customers to improve and accelerate analysis and decision-making across their supply chain operations. With RapidResponse®, our customers gain visibility across their supply chains, can respond quickly to changing conditions, and ultimately realize significant operating efficiencies.

Event Sponsors

Projects

Integrating Salesforce and CanadaHelps

Organization: The Ten Oaks Project

Organization URL: www.tenoaksproject.org

Project Lead: Hannah McGechie

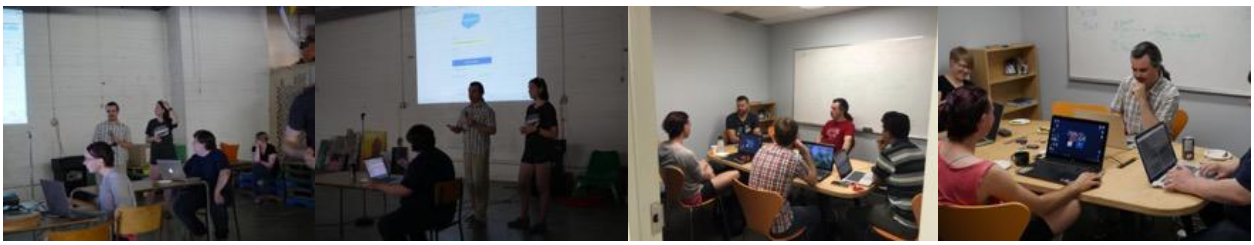
About the Organization: The Ten Oaks Project is a volunteer-driven charity that engages and connects children and youth from LGBTQ+ (lesbian, gay, bisexual, trans, two-spirit, and queer) identities, families, and communities through summer camp programs.

Team: Owen Bradley, Tim Parks, Karen Thorsen, Brett Tackaberry

The Challenge: Like many Canadian charities, Ten Oaks collects online donations via CanadaHelps. They get approximately 60 donations per month, and even more in months when they have a fundraising event that uses CanadaHelp's Peer2Peer platform. Although CanadaHelps keeps a record of everything and automatically sends donors tax receipts, they needed a record of each donation in their CRM (Salesforce) so they can access info quickly and look for data and trends about donors and donations. This will lead to Ten Oaks running better fundraising campaigns and raising more money for summer camp programs! The challenge was to create a better integration between CanadaHelps and Salesforce so that when a donation comes in via CanadaHelps, it's automatically pushed to Salesforce.

Results: The team achieved a working version of the tool by the end of the weekend. The API didn't provide access to the donation info as needed so the team had to work around this. While the team spent some time working with API but it was only to actuate test transactions. To extract donation data, the team mimicked a user login session and downloaded the data. They separated the extraction from the transformation and load in anticipation of the upcoming API, but once they had access to the tabular data, it was fairly easy to load into SF using the API. It is a node app running on a short interval looking for new data and upserting as needed. The team presented a working demo by the end of the weekend.

From Hannah: *The team at RHOK were able to create an integration hack for the Ten Oaks Project that will allow us to save dozens of hours each month. The integration is between our CRM and CanadaHelps, and we know it will be a huge timesaver for other nonprofits too.*



The IoT Beehive project: “HiveSense”

School of Hospitality & Tourism
ALGONQUIN COLLEGE

Organization: Algonquin College

Project Owner: David Fairbanks

Company Lead: TwelveDot Labs

Team Lead: Faud Khan

Team: Ying Qiao, Alfred Coates, Bernard Nahas, Kirin Rastogi, Cid Parato, Jared Broughton

The Challenge: David Fairbanks is a culinary instructor at Algonquin College School of Hospitality and Tourism. David wanted to bring aspects of the “Farm to Table” concept into his classroom. As a beginner apiarist he believed that beehives would provide an ideal opportunity to teach his students about the impacts that we have on our entire ecosystem and specifically, the food chain. The college has several beehives at a local apiary where David and his colleagues learn about beekeeping and transfer that knowledge to their students. In order to make the beehive experience more immersive and dynamic, the college wanted to use digital technology to better connect students to the hive through live data.

RHoK Ottawa Director, Brett Tackaberry approached Faud Khan and Twelvedot Labs to play a large role on this project. In the weeks leading up to RHoK, the goals and objectives for the weekend were established and project was prepared so that it was participant-ready when the RHoK weekend began.

It was determined that we would develop a system to enable real-time access to data within the hives, including:

- internal heat and humidity levels
- A borescope mounted on the inside of the hive
- A web camera to monitor external hive activity and security
- A thermal imaging camera
- Recording capabilities to archive data
- Internet access

The Beehive platform would allow teachers and students to view the hives from within their classrooms, especially during the winter semester. Students would be able to view archived footage of bees in full

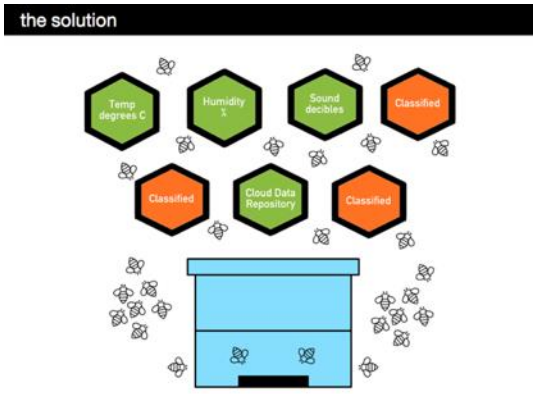
production, while also viewing real-time thermal images of the hives in dormancy) and vice versa for Spring students. Remote-viewing of the bee keepers (involved faculty) maintaining hives in a real-time environment would also be available.

After harvesting, samples of honey from the different hives would be given to the Biotech program for chemical analysis. This would help to further reinforce the concepts of food traceability and external factors (such as pesticide use and area flora -used for pollen and nectar harvest) that affect the Farm to Fork concept.

Additionally, if we were able to collect data in a timely and meaningful manner, we could use this data to help increase hive production and we would be better equipped for future hive-management protocols.

The Approach: It's no secret that there is a worldwide crisis of a declining bee population. There are several theories as to why this might be happening, but no one really knows exactly why. Scientists are tackling this problem through studies that examine possible causes for the declining population and others are attempting to find ways to protect the precious populations that still exist by exploring non-invasive methods for monitoring and maintain beehives.

While we had a general understanding of the issue and the aim of the project at hand, we felt it was extremely important for us to get firsthand knowledge and experience and so met with David at the local apiary. In talking to the apiarist, we learned about how bees live and how even just the weekly physical inspection of the beehive can result in a 1% bee loss. When you consider the declining population of bees this can be significant over the course of one season.

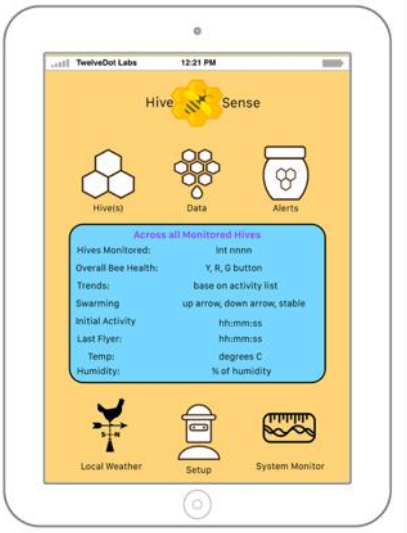


Equipped with more in-depth knowledge, we set on a path to build a system that would actively (but non-invasively) monitor critical aspects of beehive life. This included temperature, humidity, sound. The challenge was to actively monitor the hive on a love basis without disturbing the natural process of honey making.

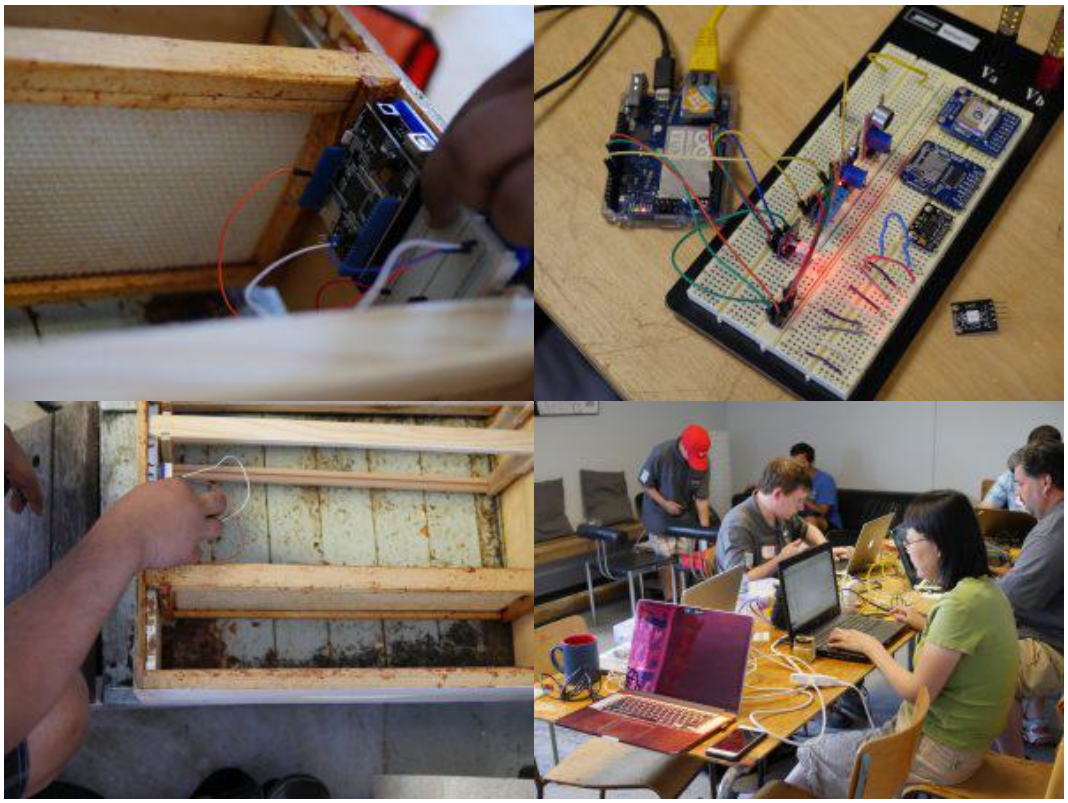
The Results: Before the RHoK event, we sourced sensors and micro-controllers what would meet our needs and created a high-level architecture for our approach. Given that we only had approximately 16 hours to complete the project, we needed to prepare some aspects in advance. Over the course of the weekend we were able to collect temperature and humidity and send to a web server. We also created a mobile application to render the data.. While we did this in a controlled environment, we're currently looking at options for advancing this project further.

This might include:

1. Expanding the technology to be designed to include agriculture research
2. Add more hives for monitoring
3. Working more closely with the college to expand the program and the sensors being used (the classified hives above)



Finalizing the More details about the project can be found on our current project site (created during RHoK weekend) at http://sites.simbla.com/2710b7fd-11c6-ede9-d2c5-b7b0fedb484a/.



Digitizing the CARE Package

Organization: CARE Canada

Organization URL: www.care.ca

Project Lead: Kasia Lech

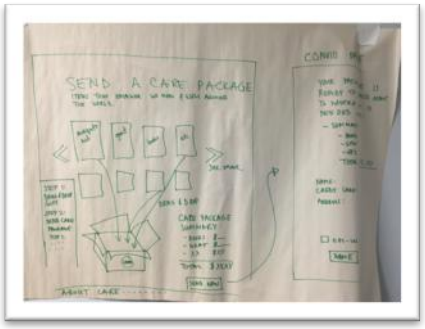
About the Organization: Founded in 1945, CARE is a leading international humanitarian organization fighting global poverty. CARE delivered the first CARE Packages to war-torn Europe. Today, with the help of Canadians, we deliver more than the contents of a single box.

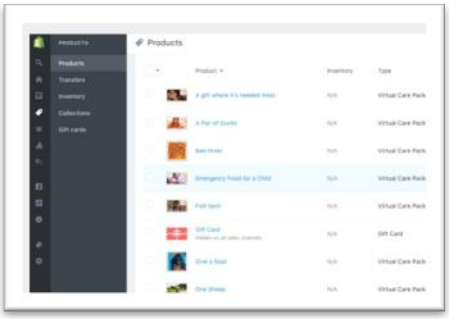
Team: Carl Neustaedter, Ashraful Ahamed, Benjamin Thomson, Gerald Humphries, Karen Lin, River Wang, Wendy-Anne Daniel

The Challenge: The CARE Package was invented by CARE 70 years ago. CARE Canada is looking for a way to bring the CARE Package to digital life!

The Result: As part of branding the digital CARE Package, we decided to make a tool online whereby users send a 'virtual care package' to a woman or family in the developing world. We created a 'drag and drop' experience for the user to fill their own CARE Package. The product feed used the catalogue API to pull the list of products. The strategy included integration with Shopify, and Facebook and integration into CARE's website. The team demoed a working version of the drag and drop box, product feed, and various design elements.

From Kasia: RHoK was an amazing experience and highly beneficial for CARE Canada. It was very inspiring to work with a team that was so passionate and so brilliant - from coming up with creative ideas, to troubleshooting challenges to making something out of nothing. It was a truly amazing opportunity. Thanks from all of us at CARE Canada.





Social Enterprise Marketplace

Organization: Centre for Innovative Social Enterprise

Organization URL: www.cised.ca

Project Lead: Kathleen Kemp

About the Organization: The Centre for Innovative Social Enterprise Development, CISED, offers a continuum of supports for social enterprise in the city of Ottawa, including access to technical expertise, coaching, financing, learning communities, training, and cross-sector partnerships.

Team: Chris Budiman, Justin MacNeil, Milton Wani, Nathalie Leclerc, Nikov Sieber, Stephane Berube

The Challenge: More and more purchasers at the individual, corporate, and public level want to leverage their purchasing dollars for greater social and economic impact. At the same time, Ottawa-based social enterprises are searching for innovative marketing tools to extend their reach and build profile for a growing range of products and services. CISED knows the next step is development of an innovative online marketplace where purchasers and suppliers can connect – one that will generate commerce, build awareness, and grow community impact. The team wanted to design a solution that would provide CISED with an online Marketplace for social enterprise in Ottawa. Desired features of the Marketplace platform included: the ability to input & update social enterprise profiles, multiple search filters for buyers, accommodate SE2* commerce, and, enhancements for user experience – videos, pictures etc.

Results: The team developed a working version of market place using Wordpress CMS. Code repository and demo site is on rhok.ca.

From Kathleen: *RHOK was a great opportunity for CISED and we are excited about the future of our project post-event. We were lucky to be paired with such a great team of creative minds who were able to give us an outstanding prototype of what will eventually become the City of Ottawa's social enterprise directory. Our team is grateful for the opportunity to have worked with this group to make our ideas become a reality. We hope to involve more social enterprises in this event as it provided such value for our organization. Thank you so much to the organizing team and the participants for everything!*

Sens@School Educational Content

Organization: Sens Foundation

Organization URL: www.sensatschool.com

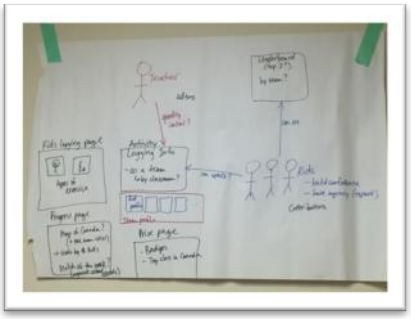
Project Lead: Caitlyn Ridgeway

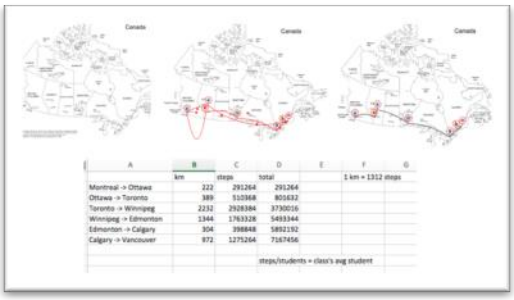
About the Organization: Sens@School in partnership with the Sens Foundation, is an online education program that uses hockey and Ottawa Senators-based lesson plans and activities.

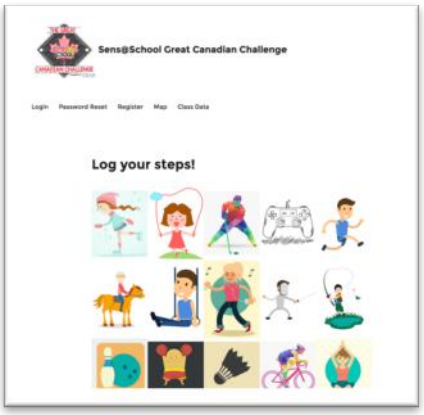
Team: Andra Adams, Hannah LeBlanc, John Howat, Kyle Kung, David Dobias

The Challenge: This year SENS@SCHOOL wanted to bring some of this material to life as an interactive, educational game for the students to use on to go.

The Result: The team created a web app to track student activity and plot the equivalent in steps across the country from NHL city to NHL city. The team developed a Wordpress website with user accounts and the website helped the users to submit progress. The results were plotted on a map with dynamic paths between NHL cities. The website included graphic elements like a new logo. some icons and badges.







Measures

By the Numbers

Facts

When:	June 24, 25, 26
Where:	MakerSpace North
How many participants:	55
Projects:	5
Projects with useable outcome:	2
Social media:	100 tweets, Retweets from VolunteerOttawa, Canarie, InvestOttawa, Canadian CED Network, Rebel
Media:	Globe and Mail, OBJ, Techopia

Financials

Revenue	
Sponsorship	$4,250
Ticket Revenue	$150

Costs	
Food & beverages	$2,400
Venue	$1,300
Participant gifts	$500
Other	$200

Feedback

How likely is it that you would recommend our event to a friend or colleague? **Rating Avg.: 9.2/10**

- *This being my first time going to a rhok, I wasn't sure what to expect. All I can say is: I had a blast! Kudos to the organizers, sponsors, and everyone who made this possible. Everyone at the event had a good, friendly, and "let's have fun & get stuff done" attitude. From a participant's perspective, everything went without a hitch. I'm looking forward to participating in the next one.*
- *I enjoyed it immensely. It was my first and I found the people extremely talented and generous and very well organized.*
- *Great job! Was extremely drained at the end of it (which was expected), but still enjoyed it.*

What would you stop?

I wouldn't consider Maker Space North as a venue unless it were the only viable option.

What would you start?

Ask participants to say more on social media about the event

It would be nice if there was a skills inventory so people could form groups to get the most bang

Exercise breaks

I would start doing this event twice per year

What would you keep?

I thought Slack worked really well.

the code of ethics was very good

Organizers went around checking status and giving very valuable advice on possible roadblocks

What would you change?

Charity representatives need to be more prepared with the right access and knowledge of tools

I found the final presentations brutally long.

Name tags were great but it would have been nice if people list their skill sets/background

Make things more challenging and difficult so that we really have to hack our way in

Venue (Rating Avg.: 4.0/5)

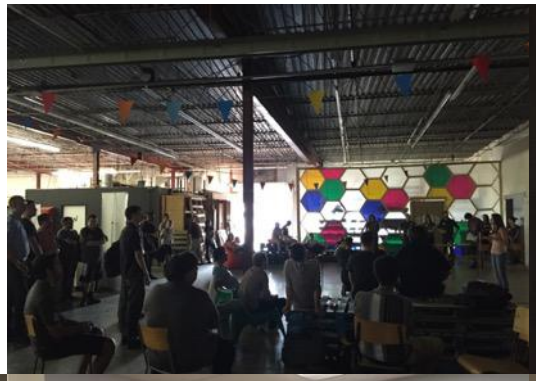
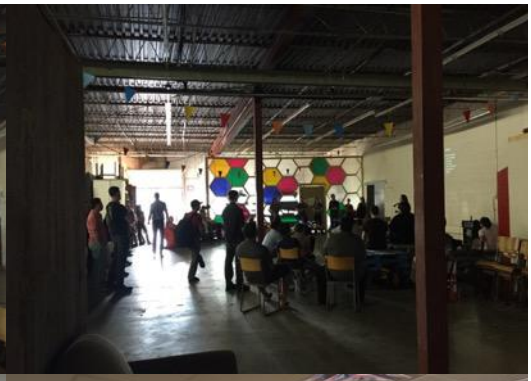
- A bit loud and distracting working in the same space as another team.
- I like the creative atmosphere at makerspace
- Sweltering temperature, but very friendly and open.

Food (Rating Avg.: 4.4/5)

- The catering was exceptional
- Food was excellent, but could have used some snacks throughout the day... was pretty hungry by dinner time on Saturday!
- A jug of drinking water to fill up water bottles would be great

Random Hacks of Kindness

Photos











Random Hacks of Kindness