



UP4 The Challenge

IN PARTNERSHIP WITH  
**THE PARKDALE FOOD CENTRE**



*Photo by UP4 The Challenge participants, Ottawa 2018.*

### Pilot Program - Ottawa 2017

[UP4 The Challenge](#) brought together a small group of seven middle school students from Fisher Summit Alternative School with members of the Parkdale Food Centre, a local Ottawa organization that builds more connected communities through healthy food and friendship. Our initial 3-week program introduced students to a creative approach to problem-solving known as human-centred design that focusses on the people at the heart of an issue. Participants had an opportunity to interview their neighbours who use the Parkdale Food Centre (PFC) to better understand the challenges around food security and social justice. Based on this research, they designed a multifaceted solution that they presented to a panel of mentors, including representatives from the food centre. Through this youth-led process, participants gained an appreciation for the potential for science and technology as tools for positive change.

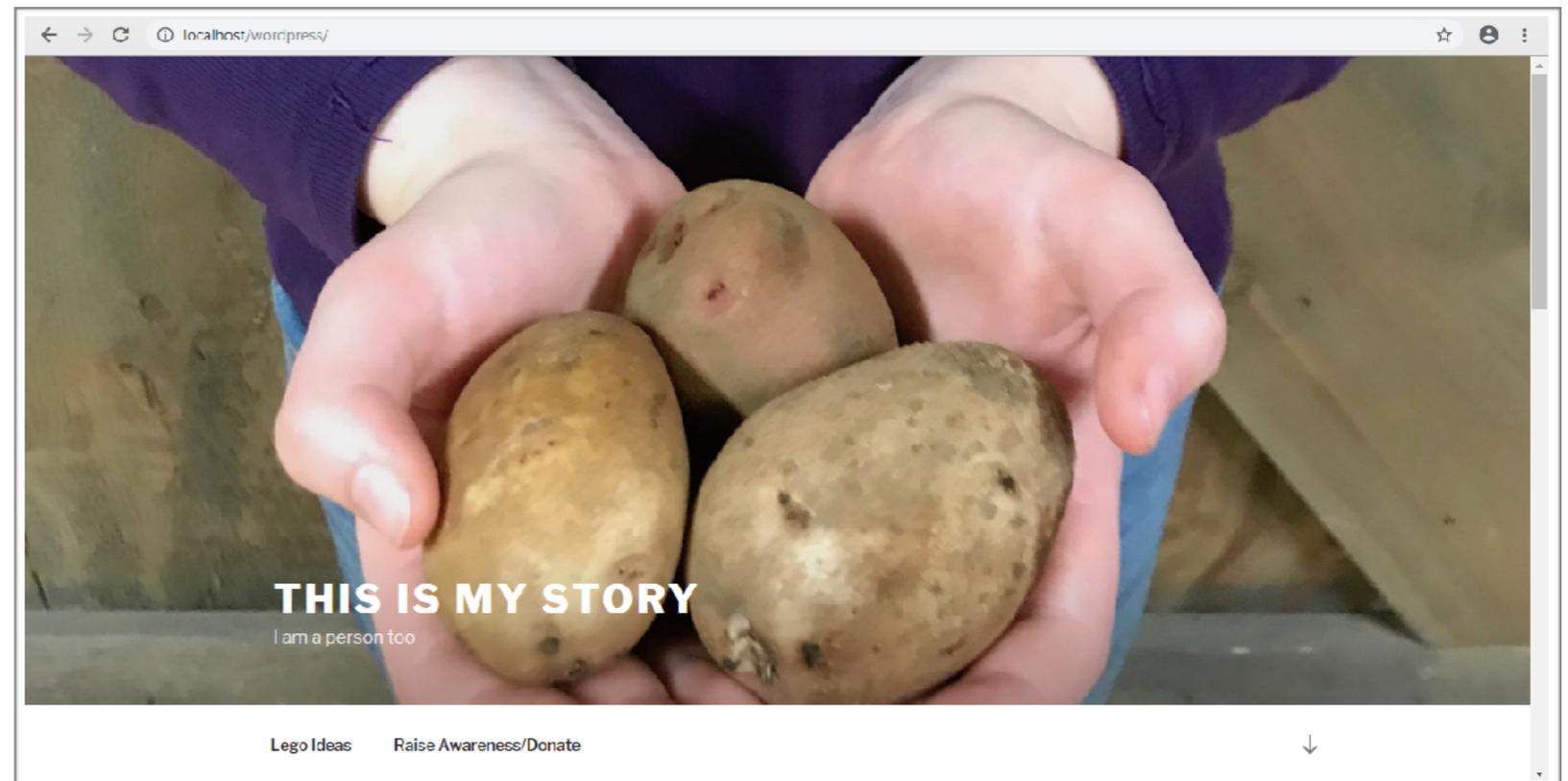


Photo by UP4 The Challenge, Ottawa 2017.

### Design for Social Impact

Based on their learning through communication with the PFC neighbours and leadership team, *UP4 The Challenge* participants identified several issues they felt should be addressed, including not only the quality and quantity of food available to those in need, but also our society's perception of poverty. They noticed that despite the caring home provided by the PFC, outside of this environment neighbours felt "invisible." They decided to find a way to share with the broader community the neighbours' stories and what the PFC means to them.

Their solution includes a website to share interviews conducted with the PFC neighbours and to promote the LEGO design of the ideal food centre. The LEGO project



*"We've collected the stories of some neighbours and volunteers so that their voices can be heard." Screenshot from the My Story webpage created by UP4 The Challenge participants, Ottawa 2018.*

incorporates design features discovered through conversations with neighbours. Through LEGO IDEAS, this design has the potential to become an actual product, thereby reaching far more kids to create awareness about food security.

*"I see different people, they come and say hi and everybody cares about each other, so I feel good."*

*- Interview with Emalia, PFC neighbour*

# LEGO IDEAS PROJECT



"...bringing the attention of youth toward the problem and challenges of hunger..."



Photos by UP4 The Challenge participants, Ottawa 2018.

# THE IDEAL FOOD CENTRE FOR OUR NEIGHBOURS

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## LEGO Food Centre Design Features

The LEGO food centre was designed based on the insights discovered by our *UP4 The Challenge* participants during interviews with the PFC neighbours. The following project description was written by our designers.

Food is a huge issue. Not just in some countries, but everywhere. Having a lego food centre would not just be a cool addition to a collection, but it would raise **awareness** for food issues. Kids love lego, this project would reach out not only to adults, but to kids too- we would be teaching a new generation about issues in there own community.

The food centre includes:

1. A **community fridge**. This fridge lets people who are not clients to grab some food for a snack. There are no forms to fill out, no waiting, you can just grab a snack.
2. An indoor growing tower. Provides **fresh food** when you can't grow it outside. The food centre provides towers for schools so that they can start businesses.
3. A kitchen with a stove, microwave, and sink. There are usually many groups working at the kitchen all at the same time. Here people can run cooking workshops to **build life skills** for clients. The food centre takes food from the growing tower to turn into different foods.
4. A community table. This is the heart of the food centre. This is where people can talk while they eat or wait for the food bank. This is also where lots of **social enterprises** meet.
5. A quiet eating area. Some people might not want to eat with a big group at the community table, so they can eat in a **quiet eating area**.
6. A food bank with a sliding door. Unlike the traditional food bank the food centre arranges theirs like a grocery store.
7. A bus stop. This allows people to arrive at the food centre easily if they live further away.
8. An outdoor **shared barbecue**. This allows people who might live somewhere they don't have a barbecue, like an apartment, to cook their own food. It also means that people can show others how to cook food of different colours.
9. A food of the month cart. This cart highlights seasonal foods and **healthy choices**.
10. A reverse food truck. The reverse food truck makes trips to grocery stores to get food for the food centre. It also works like a portable food bank.
11. A rooftop garden. So the centre can **grow** their own food.
12. A storage. To hold gardening supplies and empty boxes.

# Our Vision

DIVERSITY FOR INNOVATION

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Photos by UP4 The Challenge, Ottawa 2018.

## Science & Math for Social Impact

It is widely known that women and marginalized groups are under-represented in the science, technology, engineering, and math (STEM) fields – fortunately, we’re seeing more and more innovative approaches to making science accessible and fun. That said, after grades 7 and 8 girls who once showed an interest in STEM often shy away from these fields. So how do we motivate them to stick with it? Educators suggest “[reframing the goals of \[STEM\] to be more relevant to societal needs.](#)”

*UP4 The Challenge* is about creating such an experiential learning environment for students: our mission is to advocate meaningful connections

between STEM and creative solutions to community challenges. We do this through a human-centred design approach in partnership with a community organization that provides context to the issues being addressed by our program participants. By focussing on people’s values and aspirations at the core of the design process, we believe *UP4 The Challenge* participants will discover opportunities for meaningful change, thereby creating incentive to understand the science and math that will support their solutions (in the PFC case, both architectural and web applications). We anticipate that this approach will lead to an increase in the diversity in the STEM fields ... as well as the ingenuity and effectiveness of our design ideas.

### Supporting One Another

At *UP4 The Challenge*, we wish to foster a collaborative culture with partnering organizations to ensure high quality, mutually beneficial programming. We recognize that grassroots community groups can provide our participants with a deeper understanding of the social issues they are tackling on a daily basis, thereby creating opportunity for real impact. We encourage communication and learning with community members who are directly impacted by our community partners' outreach efforts, so our program participants can appreciate their perspectives and personal challenges.

In turn, *UP4 The Challenge* is creating a network of socially-minded youth with greater awareness of the challenges faced by members of



*Future science educators constructing their human-centred design solutions.  
Photo by UP4 The Challenge, Ottawa 2018.*

their own communities and the confidence to generate creative, user-centred design solutions. We are furthermore expanding this network to educators, parents and caregivers who can help support longterm, sustainable change-making initiatives through experiential learning and action.

In addition to providing small tokens of appreciation such as gift cards to our partners' volunteer community members involved in the program, additional benefits they've received from the partnership include a sense of connectedness and hope for the future brought on by youth who care about creating change.

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