

CIRCULAR ECONOMY CASE STUDY: TORONTO TOOL LIBRARY



Canada united in the achievement of zero waste, now and for future generations

GENERAL INFORMATION

- Social enterprise founded in 2013
- Consumer goods sector
- Located in Toronto, Ontario and serves Toronto neighbourhoods
- Annual gross revenues are \$125,000; four employees
- www.torontotoollibrary.com



EXECUTIVE SUMMARY

Founded on a disruptive vision to transform consumption in society, the Toronto Tool Library is a non-profit social enterprise that lends specialized tools to community members. The Tool Library's members borrow tools in the same way they would borrow a library book. The Tool Library has over 3,000 tools available for loan including home repair, construction and renovation, gardening and landscaping, and bicycle repair tools. The tools range from simple screw drivers and drills, to table saws, welding equipment, power generators. Four 3-D printers and a laser cutter are available for use onsite. It took less than a year for the Tool Library to move from an idea to its grand opening.

The library is a money- and space-saving alternative to ownership. Tool sharing reduces consumption and waste. The philosophy of the library – and what sets it apart as a social enterprise – is that it is not trying to maximize profit but trying to maximize membership and access.

START-UP

The Tool Library's two founders joined forces in 2012 to create a non-profit organization called the Institute for a Resource Based Economy (IRBE), to provide education, engagement and tools to enable the transition to an ecologically and economically sustainable world. They began with a vision to develop a project that was disruptive in a constructive way - something that encouraged sharing but also challenged the way people think about resources. They decided on a tool library and established Toronto's first tool sharing service which they structured as a non-profit social enterprise within the Institute.

Sharing Platforms: Enable increased utilization rate of products by making possible shared use/access/ownership¹

¹ Accenture. (2014) Circular Advantage: Innovative Business Models and Technologies to Create value in a World without Limits to Growth.

In early 2013, they posted a call for tool and financial donations on the internet and through the local media. The request went viral and the Library received over 1,000 tools. Subsequently, the library was able to build its inventory primarily through donations. The donated tools not only created a community asset, but put unused goods back in circulation and kept them out of the landfill. The Tool Library secured space for their first location in the basement of a recreation centre. About 100 volunteers participated in the initial renovations to convert a basement storage space into a community hub for sharing tools. The Tool Library also received \$8,000 in donations to cover renovation costs. For inventory and membership management they used MyTurn's tool lending library software which was available for free.

The business community also provided start-up support. For example, Canadian Tire and The Mibro Group donated tools and the local Salvation Army offered \$5 thrift store discounts to tool donors.

The Toronto Tool Library opened in March 2013. Six months later it expanded into a second, larger location. One night of fund-raising generated \$5,000 in local community donations. The positive community reaction provided the confidence the Library needed to more than triple its capacity and expand its services in one year. The second building includes an onsite "maker space" which members can access 24/7 to work on their projects with library tools.

In its first 18 months of operation the Tool Library has received funding and support from:

- Ontario Trillium Foundation (for a 3-D printer, laser cutter and youth programming)
- Home Depot Canada Foundation (the foundation contacted the Tool Library with an offer of a grant)

- Canadian Tire and The Mibro Group (tool donations)
- Social enterprise 5-year cash flow loan from Alterna Credit Union
- Community and crowd-funded donations (see text box)
- Membership revenues

CROWD-FUNDING RAISES CAPITAL

The Tool Library used the Centre for Social Innovation's crowd-funding platform, Catalyst, to raise \$16K. The money was used to open the Tool Library's second location.

Volunteers staffed the library during the launch and start-up year, keeping its costs low. Volunteers continue to play key roles as librarians, shop supervisors and maintenance and repair volunteers.

Today the library operates on a break-even basis. Grant funding played a significant role in the first 18 months; however, memberships (both Tool Library and Makerspace) and programming are now the largest revenue sources. Some memberships are subsidized for those who cannot pay the full cost.

Since opening its doors, the Tool Library has added to its service offering. The "maker space" in the second location offers tool and skills training and full time workshop access for a maker membership fee of \$100 per month. Artists, hobbyists, professionals and others use the space for carpentry and woodworking, ceramics, product design, technology and robotics, maintenance and repair,



construction, 3D printing and laser-cutting. The library also offers skills training workshops, after school programs, 3D printing, laser cutting, and router services. The workshops and added services attract new members to the Tool Library. Members are encouraged to teach classes. The Tool Library vision is to be a community space where people can request or teach workshops: a space where everyone is constantly learning from each other.

3D PRINTER: A DISRUPTIVE TECHNOLOGY ENABLES REPAIR AND UPCYCLING

The Tool Library bought a 3D printer for its potential as a game-changing disruptive technology that empowers people to easily produce things themselves. The Library offers classes on how to design and print objects and uses the printer to repair tools by printing out specific pieces that are broken. The printer enables the Library to promote upcycling design, for example 3-D printed caps turn discarded cardboard rolls into storage containers.

The Tool Library is committed to operate as a circular economy enterprise by eliminating its operational waste impacts. For example, broken or defunct tools are taken to waste recycling facilities and parts are salvaged from broken items to repair other tools.

GROWTH AND DEVELOPMENT

The Tool Library's growth model is built on three foundations: (a) teaching the public how to use the tools and providing maker space; (b) expanding public awareness of, and access to, the Tool Library; and (c) increasing public acceptance of borrowing, repairing or sharing rather than buying and owning.

To expand public awareness and access the Tool Library entered a partnership with the Toronto Public Library where its third branch to be launched in 2015. Memberships from the new branch are expected to cover operational costs, including a part-time salary and rent with the possibility of a small profit by year end.

The new branch will be operated as a pilot in its first year and if successful could be expanded to more Toronto Public Library branches of which there are about 100. The public library is one of the world's busiest library systems, with over 18 million visits in 2013. Over 70% of Torontonians use the public library. This partnership has the potential to significantly increase the exposure, reach and scale of the Tool Library and its waste reduction potential.



The Tool Library has incubated other circular economy sharing services, from a kitchen library to a repair café and swapping. These help foster public acceptance of the sharing concept.

The Kitchen Library lends expensive and rarely used kitchen appliances to its members, and offers cooking and baking workshops. It operated out of the Tool Library's premises in its first year before relocating to space closer to high-density living, a move expected to enhance its viability.

The Repair Café is a monthly event held in partnership with several community groups such as the Toronto Public Library in which people bring and repair their broken appliances. By repairing rather than discarding broken appliances, participants extend the life of their goods, reduce further consumption and landfill waste and save money.

Swapping: To further reduce consumption and waste, and promote its sharing philosophy, the Tool Library runs swapping events, such as an Alternative Christmas gift fair in which people bring and swap lightly used or new items considered giftable. Similar events are held for other high consumption holidays such as Halloween and Valentines – shifting the public norm from buying to swapping.



IMPACT

The Tool Library has over 1,300 members who have made over 10,000 successful loans, with close to a 100% return rate. Members are primarily younger men and women (about 50/50 split) between the ages of 25-35 mostly in the low to middle income bracket, living within about 5 – 10 kilometers. There are also a number of young family members who seek affordable tools and space to renovate their homes. Some are attracted because they don't want to pay contractors and others prefer to do the work themselves. Tool donors, on the other hand, are mostly over 40 years of age. The social enterprise relies heavily on social media for viral marketing and customer engagement.

“If you take out a drill once you save money with your membership. I estimate that well over \$100,000 has been saved by our users who would have had to buy their own tools instead of borrowing.”

– Ryan Dymont, Co-Founder

The biggest customer driver is financial, but the benefit quickly becomes social, given the interactive and experiential service. Knowing the tools were donated by their neighbours makes members feel more connected to their community. Their work is posted on Facebook and used in advertising to help others see how easy building and repairing can be. They prefer the personal experience of borrowing tools to the anonymous experience of a hardware store. The customers connect readily to the waste and clutter issue of tool ownership.

The Tool Library believes it is fostering community resilience by providing the resources, skills, networks and gathering places for neighbours to meet, learn, share and build their lives together. Jobs and volunteer opportunities are created, waste is reduced, consumption is lowered and the need for housing space and storage is reduced. People can save space and money and reduce the mining, refining, welding, shipping, and packaging that goes into making those underused tools in the first place. With roughly 500 members at each location borrowing potentially 4,500 times a year, the Tool Library's possible expansion across the Toronto Public library system of 100 branches could be a significant catalyst for the sharing economy.

Tool libraries have opened across Canada – such as Vancouver, Calgary and Halifax – and many others are in development. The number of tool libraries is also growing worldwide as part of a much larger movement where companies and individuals are maximizing the value of underutilized assets through different business models. While still in its infancy, the sharing economy has the potential to disrupt the way we produce and consume with long-run benefits for business and society.

RESOURCE HUBS – LONG TERM VISION

The Tool Library's long-term vision is to create resource sharing hubs with more than just single classes of items.

The vision is of a centre where, for a minimal membership or free if possible, people can access all of the resources they need. This could be bicycles, board games, art, media equipment, camping goods, air mattresses – anything not used on a regular basis.

Its next big investment to be rolled out in 2015 is to design and build a vertical living library service – a project in a high rise building where residents can share tools, vacuum cleaners, kitchen appliances and other items not used every day. The library inventors are developing the software to enable this.



Developed by the National Zero Waste Council in collaboration with the Ministry of Environment.

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