What are These Things Doing in the Library?

How Makerspaces and Library of Things can fit in your library's collection and service.

Al Peterson

North Dakota State Library

If you are in this session by mistake, please return to the main room and send a chat to Cindy Olson so we can move you into the right room.



Libraries are cornerstones of informed citizenry and vibrant communities.

Libraries have always been a place of discovery and lifelong learning.

Libraries serve as community centers where people can gather and attend events.

Libraries have served as institutions of education equality and a crucial point of digital access to those who can't afford computers or internet access at home.



Libraries have always provided materials such as books, **DVDs, Music CDs, and digital materials to those who can't** afford them.

We provide computer access, computer classes, tax forms, story times, and other programs.

Makerspaces and Library of Things extend libraries' roles as centers of opportunity and learning.



Origin of Makerspaces.

The Do-It-Yourself movement started up in 1950s through the 1960s

- Returning G.I.s and growth of the suburbs
 - Unfinished spaces such as basements
 - Growth in the power tools industry
 - Station Wagons



Do-It-Yourself Garages - A shop that rents space and equipment to people who were trying to fix their own cars.

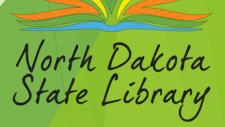


Tom and Ray Magliozzi (not Cheech and Chong) opened a DIY garage, Hacker's Haven, in Cambridge MA in 1973.



C-Base- Established in Berlin, Germany in 1995, as a hackerspace is considered one of the first Makerspaces.







Membership-based, open-access, do-it-yourself (DIY) workshops and fabrication studios. Started in 2006, in San Mateo, CA by Jim Newton, Ridge McGhee and Robert Thomas. Jim Newton, who had been a science adviser to the TV show MythBusters and a College of San Mateo Robotics Professor.

At the height of their success there were 10 TechShops across the US, 4 international.



Equipment included

- Table saws, miter saws abrasive saws,
- Metal and wood lathers, milling equipment
- Welding equipment
- Sheet metal fabrication equipment
- 3D printer and CAD software
- Textile areas with sewing machines



TechShop filed for bankruptcy in 2017 and all US locations have since closed.

People who were members of TechShops went on to start their own versions of it, spurring on the Makerspace movement.



Examples of Makerspaces:

Hackerspaces- places where computer programmers shared knowledge and infrastructure.

**** "Hacking" refer to activities that involve making existing** objects i.e. programs do something unexpected.

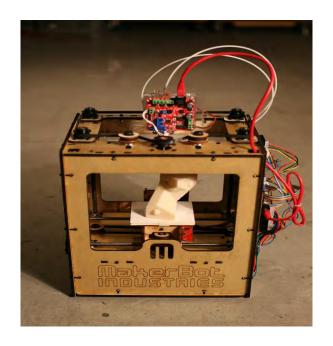
• Development of Freeware, open-source software, and open access blueprints.





Difference between European and American hackerspace is Americans worked on physical projects.

Led to development of Makerbot Industries 3d Printer





Fab Labs- (fabrication laboratory) small scale workshops

Focused on small scale manufacturing such as electronic components like circuit boards using digital fabrication tools for industry.

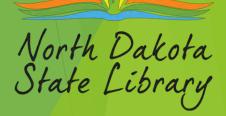
Sometimes partnered up with a particular industry or Technology education program.

Often participates in larger global networks and the sharing of ideas across borders.



Makerspaces in Libraries offers a different type of service to patrons. A library makerspace allows patrons to experience technology or activities that they previously were not able to access

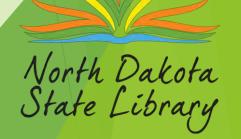
- The first public library makerspace was in 2010 at the Fayetteville Free Library in Fayetteville NY.
- Mobile Makerspace consisting of a 3D printer, laser cutter, and sewing machine.



Successful Library Makerspaces

Community buy in:

- Identify stakeholders
 - Youth Patrons STEM, Robotics
 - Adults Patrons photograph digitization, quilting machines
 - All Patrons- Cricut machines, 3D Printers



Successful Library Makerspaces

Library staff and volunteers buy in:

- Is the Library board in favor or at least not hostile to the idea
- Do staff or library administration have buy in?
- Who is willing to staff/teach in the Makerspace



Successful Library Makerspaces

General Community:

- Community conversations
- What groups are meeting/community interest



Successful Library Makerspaces

Physical location

- Space allocation for a makerspace
 - Before and after a potential makerspace
 - Offsite
- Storage
 - Shelves, Cupboards, Closets
 - Portable- Carts, Mobile Units



Successful Library Makerspaces

Environmental factors

- Enough electrical outlets
- Workspace and Tables
- Barrier between library patrons and makerspace
 - Ventilation
 - Noise Factor



Successful Library Makerspaces

Financial Factors

- Initial start up
- Enough budget for replacing the consumables
- Budget for expansion



Successful Library Makerspaces

Policies and Procedures

- Conform to your existing policies
 - Responsibility of clean up
 - Attendance policy of children with an adult
 - Waiver (have an attorney write it)



Library of Things

Definition- a collection beyond traditional library materials.

Difference between a Library of Things and a Makerspace is that materials in a Library of things are meant to be checked out and used offsite.



History:

Toy Library- first established in 1935 in Los Angeles

- Westchester area of Los Angeles -Loan toys to low income children **who's** family could not afford toys.
- Started after a manager of a dime store who caught a couple of young boys trying to steal small toys.
- The children's principal told the probation officer that these were good kids put in a bad situation because of the depression.
- The store owner and others in the business community helped start the first toy library.
- "We cannot let children like these become delinquents just for a lack of toys."



Library of Things

Toy Loan Program - Department of Public Social Services

- Currently available to people enrolled in DPSS services.
- Focus on educational and Bi-Lingual resources, but do have children's books and regular toys available
- Toy libraries and resources libraries grew with the expansion of Headstart in the 1970s.



North Dakota State Library

Library of Things

Tool Library- First known tool lending library was started at the Grosse Pointe Public Library in Grosse Pointe Michigan in 1943 by the local Rotary Club.

- Lack of access to tools during World War II.
- Borrow tools from basic hand tools and garden and yard equipment.

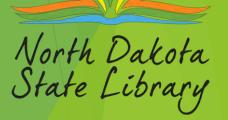


Library of Things

Resurgence in the 1970s

- Columbus OH, ModCon Living Tool Library
- Berkeley CA, Berkeley Tool Library
- Seattle WA, Phinney Tool Library
- Give access to tools for those who can't afford them to make repairs on things they can't afford to replace or get fixed by someone else.

The term Library of Things was popularized in London 2014 when the Library of Things was established at the West Norwood Library.



Example of Library of Things: Tool Libraries





Example of Library of Things: Seed Libraries



North Dakota State Library

Example of Library of Things: Board Games Library





Example of Library of Things: Kitchen Appliances Library



North Dakota State Library

Example of Library of Things: Cake Pans Library



North Dakota State Library

Example of Library of Things: Outdoor Recreation Library



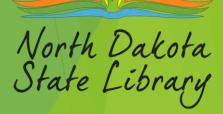
Fishing Equipment



Snowshoes and Skis

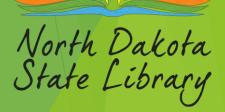


Outdoor Games



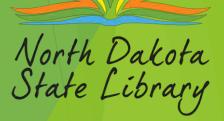
Example of Library of Things: Musical Instruments Library





Example of Library of Things: E-readers, Tablets, Mobile Hotspots





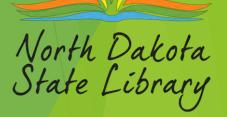
Setting Up a Library of Things

Financial

- Start up costs
- Consumables
- Expansion costs

Community Assessment- Who lives in your community?

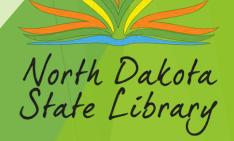
- What cultures are represented?
- Economic conditions in your community?
- Age median of community?
- What businesses may see you as competition?



Setting Up a Library of Things

Library Space- Where will you house the Library of Things

- Spare shelves
- Carts
- Cabinets
- Corner space



Setting Up a Library of Things

Insurance and legal issues

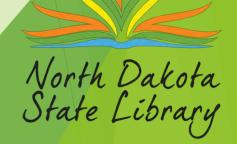
• Waiver statements

Loan policy

- Local use only (No ILL)
- Cleaning before return

Damage and replacement policy

- Consumables vs Damage
- Replacement



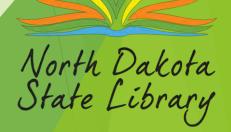
Panel discussion on Library of Things and Makerspaces in North Dakota

- Rolla Public Library Makerspace
- Cavalier Public Library Library of Things
- Grand Forks Public Library Library of Things
- Lake Region Public Library Library of Things-<u>https://devilslakendlibrary.com/library-of-things/</u>



Cavalier Public Library - Strategic Games





Questions?



Contact Al Peterson 701-328-4661 alpeterson@nd.gov



Thank You!

