

Tool Libraries and Localization



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Cover photo credit: John Shea works with a volunteer at Matthew 25 Tool Library in Cedar Rapids, Iowa to repair a roto-tiller. Courtesy of WhatWeekly.com.

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I. Introduction

A. Purpose and Overview of the Report

This report has been designed to share the premise of energy descent and transition toward positive localization with tool library organizers past, present, and future. It also informs localizers of how a tool library fits within the context of energy descent and illustrates positive localization that is currently underway. In looking at case studies of current tool lending, particular focus is placed on Ann Arbor, Michigan, because it serves as home to the authors.

This report begins with a discussion of localization and particularly how the localization context will influence our thinking around tool lending libraries. We then look at existing tool lending libraries to identify common themes and different approaches to sharing tools. Finally, we look at tool lending initiatives underway in the Ann Arbor area with the goal of illustrating the intersection of tool libraries and positive localization.

B. The Coming Energy Descent and Localization

Using cheap, plentiful, and high-quality energy is part of almost everything we do in modern society: from getting to work by car or bus, to eating food that was grown or processed thousands of miles away, to lighting, heating, or cooling our buildings at the flick of a switch. By and large, fossil fuels make this possible, but there's only so much of these resources in the ground and even less that is readily accessible. Electricity is cheap because of natural gas and coal; transporting people and goods would be much harder at any price without oil. As fossil fuel production starts to lag behind demand, over time energy will become less affordable and less continuously available. This energy descent will cause governments, companies, and citizens to change the way they do things, from transportation and distribution of goods to community and everyday life. Communities that build, grow, and collaborate locally will have stronger social ties and be more adaptive to the disruptions of energy descent.

In this report, we use the term "localization" to refer to responses to energy descent that strengthen local and regional self-sufficiency and resilience. Efforts to promote localization, however, do not need to wait for proof that energy descent has started. For example, even though the precise date of peak oil will not be known until some years after it has occurred, it is still inevitable that fossil fuel production will decline, and likely that energy descent will occur within a few decades. Further, efforts toward localization can improve communities and quality-of-life now.

II. Tool Libraries

Sharing tools among neighbors will be a valuable strategy for dealing with the coming energy descent. People will need to use tools more often to repair items they previously would have thrown out and replaced. They will also need to grow or store some food they previously could have bought pre-packaged and shipped from far away. At the same time, owning a full complement of tools may become prohibitively expensive as the costs of energy and manufacturing increase. A tool library is a community resource that allows members to rent out a variety of tools for the purpose of home maintenance, repair, or building. It's helpful to think about tool libraries in parallel to reading libraries to understand their function and usage. The library usually has a variety of tools in inventory from the more expensive power tools to the hammer or screwdriver. Tool libraries help people save money and access specialized tools. Tool library projects already exist around the world. This chapter presents an overview of tool libraries, organized around frequently asked questions and case studies of exemplary libraries.

A. What Are Tool Libraries?

There are more than 40 active tool lending libraries in the United States. These libraries exist to facilitate the sharing of physical tools, such as saws and shovels, among neighbors or community members. Despite this shared objective, tool libraries vary considerably by how they are funded and organized, what tools they carry, and what additional training programs and other resources they provide.

B. Why Tool Libraries?

While neighbors have been sharing tools informally throughout history, the first formalized tool library in the United States emerged in the public library in Grosse Pointe, Michigan, during the 1940s. According to Carol Evans, coordinator of circulation for the library, lending tools was an effort “to teach young men dexterity while their fathers were away, so they could do the chores at home.”¹

Since then, community organizers and public officials have drawn on various motivations in starting tool lending libraries.

- *Disaster Response*—The Tool Lending Library at the Oakland Public Library (OPL) began in response to the 1991 firestorm that devastated the Oakland hills. OPL established a “Home Resources Collection” to assist residents as they worked to repair their homes.² Similarly, the Matthew 25 Tool Library in Cedar Rapids, Iowa, was started in 2008 to help homeowners rebuild following a major flood.³
- *Community Development*—In West Philadelphia, a high-poverty neighborhood with high rates of home ownership, community organizers created the West Philly Tool Library in an effort to empower residents to fight blight, build skills of neighborhood residents, and improve local economic conditions. Likewise, the Berkeley Tool Library was initially funded through Community Development Block Grant (CDBG) from the U.S. Department of Housing and Urban Development. Fitting with the goals of the CDBG program, the Tool Library was conceived and designed as an anti-poverty and community development initiative for low-income residents. Several other tool lending libraries have since received CDBG funding as well.⁴
- *Shared Consumption and Lower Environmental Impact*—Tool library boosters often point to the environmental benefits of sharing tools as an alternative to community members making individual purchases. The average drill is used for only 15 minutes in its entire lifetime, but contains significant embodied energy from the manufacturing process. Sharing tools helps

reduce that unnecessary waste. The North Portland Tool Library receives funding from a regional waste authority for its waste reduction impacts.⁴

C. What Kind of Tools Are Available?



Tool lending libraries vary considerably in size and diversity of tools offered. One of the largest libraries, the Rebuilding Together Central Ohio Tool Library, offers more than 4,500 individual tools of more than 200 varieties, including landscaping, carpentry, painting, plumbing, electrical, power, cement and general purpose (e.g., ladders, dollies) tools.⁵ Other tool libraries, such as the West Philly Tool Library, include automotive and bicycle repair tools in their inventory.⁶ The Missoula Urban Demonstration Project (MUD) operates a truck sharing program alongside its tool lending library.⁷

D. How Are Tool Libraries Organized Legally?

There are at least five formal ways to organize a tool library.

- 1) *Government and public libraries*—Public Libraries, which are equipped to check out materials, remind patrons of due dates, and collect late fees, are a natural home for tool lending libraries. Indeed, several public libraries have a tool collection that they make available to their patrons. Conventional libraries that carry tools include Berkeley, California; Oakland, California; and Grosse Pointe, Michigan. Other public agencies or departments can also host tool lending libraries. For instance, in Loma Linda, California, the City’s Redevelopment Agency operates a tool lending library for residents.
- 2) *501(c)(3) non-profit*—Tool libraries could incorporate as independent non-profit organizations and gain IRS 501(c)3 recognition, giving them the ability to accept tax deductible donations. Starting a non-profit organization takes about a year and involves creating a Board of Directors and bylaws as well as navigating regulation. We are not aware of any tool libraries that operate as independent 501(c)3 non-profit organizations.
- 3) *Program of a 501(c)(3) non-profit*—In order to reduce administrative overhead and streamline required reporting, tool lending libraries can operate as programs of a like-minded, non-profit organization. Clear boundaries and expectations should be set, especially if the two groups are not very closely aligned.⁸ University Heights Collaborative, a 501(c)(3) organization, serves as the fiscal sponsor for the University Heights Tool Library in Buffalo, NY.⁹ Similarly, The North Portland Tool Library is a project of the 501(c)(3) organization North Portland Community Works.⁴ Within this framework, the tool library may still have an advisory committee or steering committee that provides direction and oversight.
- 4) *Cooperative*—Tool libraries can also incorporate as a cooperative organization, or co-op.¹⁰ Under a cooperative structure, members pay into a central fund and, in exchange, have a role in governing the organization. The Vancouver Tool Library in British Columbia operates as a cooperative. Their website explains, “Our choice to build the VTL on a cooperative model is based upon our strong belief in local community ownership. We see this structure as a way to empower and educate our members, as well as tie our organizations’ success to the commitment of its community.”¹¹

- 5) Social Venture—Operating as a for-profit corporation could give a tool library the ability to obtain venture capital and/or loans, using business model perspectives in balance with clearly defined goals for serving the community (other terms include social entrepreneurship, and double or triple bottom line). We are not aware of any tool libraries that operate as social ventures. A possible advantage of this approach is that if a successful business model is found, stability and expansion can come from revenues, not an uncertain stream of grant and donation funding.

E. How Are Start-up Costs Funded?

Many tool libraries received initial funding through the Community Development Block Grant program from the U.S. Department of Housing and Urban Development. Other grants from community foundations have also helped. Alternatively, some tool libraries have drawn on donations from community members to cover start-up costs (see box, “West Philly Tool Library”).



The **West Philly Tool Library** launched in 2008 with the goal of promoting community development. Mike Froehlich, the library’s founder, had recently moved to Philadelphia from the San Francisco Bay Area, where he was inspired by the tool libraries and enjoyed being able to use their tools. To build support for the idea in West Philadelphia, Froehlich recruited his friends to help him pass out flyers at the local farmers market to generate interest. This outreach helped establish a core group that was interested in advancing the library. Froehlich also met with churches, mosques, community development corporations, community groups, and local politicians to ensure that the powerful voices in the community were on board with the idea (or, at the least, would not try to stop or block it). To cover start-up costs, Froehlich and his team asked residents to become “Founding Members” of the library. Neighbors who were interested in supporting the initiative could get a lifetime membership by paying a larger, one-time founding member fee. This strategy enticed a core group of about 30 members, which (coupled with a landlord’s donation of space) provided sufficient capital to launch the library.⁴

F. How Are Operations Funded?

Ongoing operations are funded through a variety of sources. The North Portland Tool Library has drawn from all of the following sources (see box below).

- Taxes—Government-run tool libraries typically receive funding directly from tax revenues.
- Membership—Several tool libraries charge a membership fee in order to participate. Fees range considerably and are often on a sliding scale.
- Late fees—Tool libraries charge late fees on unreturned tools, which generate income to support the program.
- Grants—Grants from both private foundations and government agencies subsidize the operations of many tool libraries.
- Sponsorships—The Rotary Club sponsors the tool library at the Grosse Pointe Public Library.¹² Other tool libraries receive business sponsorship.

- Donations—Many tool libraries accept donations of money and/or materials (tools and other operating supplies) to support their operations.
- Volunteer hours—Most tool libraries, even those with paid staff, draw on volunteer workers to support their operations. Some tool libraries rely almost exclusively on volunteers to maintain operations.

The **North Portland Tool Library** (NPTL), which was established in 2004, draws from diverse sources from within its community to support its annual budget of \$14,000. The NPTL does not charge a membership fee, but does solicit donations from its members and holds fundraising events. With only one paid part-time staff member, the NPTL relies on volunteers for management, coordination, and operations. One volunteer even built the database the Library uses for handling checkouts. A local brewpub and restaurant chain donates a portion of some evenings' proceeds to the tool library. Other local businesses, including the Portland International Raceway, a local realtor, and lighting fixture manufacturer have similarly contributed. The NPTL has received community enhancement grants available to areas affected by garbage disposal facilities. Meyer Memorial Trust, a local foundation, and the City of Portland Bureau of Housing and Community Development have also provided grants to the library.^{4,13}



G. What Else Do Tool Libraries Offer?

Many tool lending libraries also offer an array of training materials and workshops in order to equip their users to safely and effectively use the tools. Many libraries make books and instructional videos available for check-out alongside the tools. Others offer workshops and other skill-building trainings for the community.

The **Matthew 25 Tool Library** serves Cedar Rapids, Iowa. The Matthew 25 Ministry created the Tool Library in order to facilitate rebuilding after a flood in 2008 resulted in damage to the homes of many community members. Since then, it has expanded its inventory and relocated to a Community Center that is also able to provide workshop space to members that don't have the space at their homes. The Ministry hopes to use the workshop space to offer home improvement classes to the community. Additionally, the Cedar Rapids Public Library provided the Tool Library with a selection of books on home improvement, decorating, painting, storage solutions, green building, gardening and food preservation.



H. Further Reading

Due to widespread interest and press coverage of tool libraries, there are a number of guides to starting your own tool library available. ShareStarter.org,¹⁴ originally started by the West Seattle Tool Library, is foremost among these in breadth and depth. LocalTools.org,¹⁵ the leading checkout software for tool libraries, also grew out of WSTL. The Tool Library Google Group¹⁶ is a meeting place for those running, and interested in running, tool libraries.

III. Tool Libraries and Localization

Many tool libraries have been created in response to a community's need to develop and rebuild. With energy descent, everyday tools will become increasingly useful for home maintenance as people rely on durable goods. Increased costs for manufacturing and transportation will be passed onto consumers and goods such as tools will become more expensive. Additionally, tool libraries are valuable when preparing for localization because they promote maintenance and durability and can help build skills and community. Localization efforts do not just prepare communities and regions for the future. Initiatives such as tool libraries are currently building connections, confidence, and neighborhoods.

Under an assumption of energy descent, certain tools become less or more useful. Home repair and weatherization tools form the core of many tool libraries. Early stages of energy descent will involve intermittent electric power outages, which will limit the usefulness of power tools. Thus, tools requiring electricity should be used sparingly in a localization-aware tool library, and the collection of non-electric tools should be designed to be valuable on its own.¹⁷

Due to increased transportation and food costs, growing and preserving food are skills that will be increasingly important and necessary in the future. Thus, a localization-aware library should support food preservation, gardening, and composting. Sewing and fabric crafts should also be considered as a part of the tool library and/or in concert with a pre-existing group. Those skills allow people to produce useful things locally.

Location and distance of the library will also affect usage during localization. A tool library accessible primarily by car would be unfair today to those who don't own one, and would be significantly less useful when operating a car becomes more of a hardship. A library could become a community center and more useful when transportation becomes more expensive, but multiple full libraries would be duplicative. A hierarchy of tool libraries would resolve these conflicts, with smaller "branch" libraries in neighborhoods with tools that are more frequently used and/or harder to transport, and more specialized libraries at the city center or county seat.

A. Guiding Questions for Tool Choice

We have developed a set of criteria that will help tool library organizers to identify and prioritize tools given the context of energy descent.

Area: *Do the tools help people with the broad range of tasks they will face in an energy descent scenario?*

- Tasks include: home repair, food preservation, landscaping, gardening, sewing, and weatherization.

Timescale: *How are tool needs changing as we move further along energy descent?*

- People might face new and unexpected challenges that the use of tools could help manage.

Electricity Needs: *Are the tools functional without electricity? If they require electricity, how much and how often?*

- People might rely more on non-electric and battery-powered tools as energy costs rise and supply becomes less reliable.

Expertise: *Does the user have the necessary expertise to use the tool?*

- Instruction of use would help empower a greater number of users. Simple tools are likely to be more widely used as well.
- Multi-lingual instruction might be helpful in some areas and increase access.

Durability: *Will the tool last without needing frequent maintenance? Are there many parts that will regularly require maintenance or replacement?*

- Replacement parts and service of high-powered tools might become harder to find over time.

Seasonality and Climate: *Are there limitations to how/when/if tools should be used by season and by the location's climate? How will the location's climate be changing in coming years?*

- With a reduction in the use of electricity, people will rely more on natural light. Additionally, tools such as snow shovels would be more useful in snowy climates than others.

IV. Tool Libraries in the Ann Arbor/Washtenaw County Area

Throughout this seminar, we have learned and emphasized that strategies to prepare for and adapt to the coming energy downshift (i.e., positive localization) are most effective when they are rooted in a place and reflect the unique attributes and characteristics of that place. To that end, we turn our attention to our current home, Ann Arbor, Michigan, to explore the intersection of positive localization and tool libraries in a specific local context.

A. Facts and Figures

Ann Arbor is the sixth most populous city in Michigan and the county seat of Washtenaw County. The city is home to the University of Michigan, which enrolls 27,407 undergraduate and 15,309 graduate and professional students and employs 40,349 faculty and staff, making it the largest employer in the county.^{18,19} Table 4.1 provides an overview of Ann Arbor’s population.

Table 4.1: 2009 Population Characteristics of Ann Arbor and Michigan

	Ann Arbor	Michigan
Total Population	112,917	9,969,727
Poverty Level ²⁰	20.6 %	16.2%
Per-capita Income	\$27,159	\$23,728
Food stamp recipient ²¹	6.2 %	14.5%

Source: U.S. Census Bureau, 2009 American Community Survey, B01003. Total Population; B17001. Poverty Status in the Past 12 Months by Sex by Age; B19301. Per Capita Income in the Past 12 Months; B22003. Receipt of Food Stamps/SNAP in the past 12 Months by Poverty Status in the Past 12 Months for Households; B02001. Race.

Washtenaw County is home to a variety of land uses. Agricultural land uses are common in the western and southern areas of the county. The cities of Ann Arbor and Ypsilanti and the surrounding townships in the southeast portion of the county is the most urbanized area. Urban pockets also surround the smaller communities of Chelsea, Dexter, Manchester, Milan, and Saline.

Table 4.2 Land Use Composition – Washtenaw County

Land Use	Acres	% of Total
Agricultural	191,140	41.3%
Urban: Residential	70,544	15.3%
Urban: Commercial/Office, Industrial, Transportation, Utilities	23,772	5.1%
Undeveloped	164,156	35.5%
Recreation, Cemetery & Cultural	7,779	1.7%
Under Development	5,142	1.1%
Total	462,533	100.0%

Source: “Washtenaw County Resource Assessment,” September 2006, Washtenaw County Conservation District, accessed November 25, 2012, <http://www.washtenawcd.org/about/2006resourceassess.pdf>.

The average daily high temperature is 82°F in the summer and 34°F in the winter. Currently, the county receives an average 30.5 inches of precipitation per year with about 56 percent of that (about 17 inches) falling during the May to October growing season.²²

B. Current Tool Lending Systems in the Area

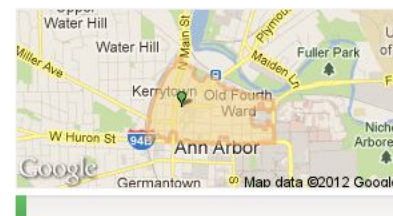
In addition to informal sharing happening among neighbors, there are currently at least four tool libraries (or organizations that facilitate tool sharing) in the Ann Arbor area.

The **Ann Arbor District Library (AADL)** lends kilowatt energy meter kits to library patrons. The City of Ann Arbor Energy Office provides the meters to the library. The City put stickers on the meters with a URL for more information and the City's energy conservation marketing brand. In turn, the AADL handles the logistics of circulation. The energy kits are popular; there is generally a waiting list to check them out. The City upgraded the meters in early fall 2012 thanks to a grant from a Google employee who serves on the City's Energy Commission. The City has not explored expanding this small scale lending program to include additional materials.²³ Borrowing the energy kit is restricted to residents from within the AADL service boundary.

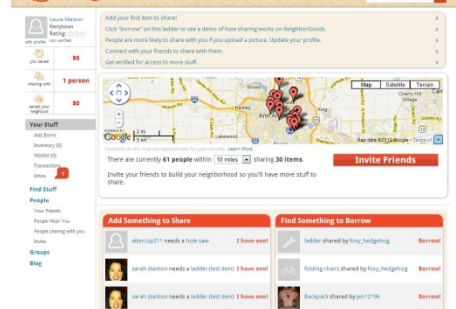
Growing Hope, an Ypsilanti-based community organization dedicated to "Helping people improve their lives and communities through gardening and healthy food access," recently launched a gardening tool lending program for its Growing Gardens members. Growing Gardens members pay a sliding scale fee (\$5-40 for individuals and \$20-60 for groups) to access gardening resources support, such as access to free gardening workshops, free packets of seeds, an informational newsletter, and access to the Growing Hope Tool Library and Home Canning Kit.²⁴ This tool library focuses on gardening tools, such as shovels, rakes, rototillers, bulb transplanters and augers, weeders, and edgers. In addition, Growing Gardens members can also read on-site and/or borrow books from the Growing Hope Educational Resources library. These resources focus on urban gardening, organizing community and school gardens, and planning food businesses.²⁵ With its emphasis on gardening and food preservation tools, the Growing Hope tool library may be the best suited for a localization context.

NextDoor.com, is a place-based, private online network system that allows neighbors to connect with each other. In order to register with NextDoor.com, you have to either provide credit card information or receive and mail back a postcard in order to verify your address. Then, you can connect with others in your neighborhood who are also using the system. One of the explicit goals of the platform is to help neighbors connect to share goods. In Ann Arbor's Kerrytown Neighborhood, there are 24 people registered for the site and low site activity.²⁶

NeighborGoods.net, similarly provides an online platform for sharing goods among neighbors. Within 10 miles of Ann Arbor's Kerrytown Neighborhood, there were 61 people registered for the site offering 30 items ranging from ladders and fans to snorkel gear and folding chairs.²⁷



24 of 733 households have joined.



V. Recommendations

A. Lessons for Localizers

Tool lending illustrates positive localization already underway. Localizers can look to current tool lending models operating in Washtenaw County to identify principles of localization.

Principle 1: Localizers should promote frugality and efficient use of resources

The Ann Arbor District Library offers users the opportunity to measure their energy usage by lending energy meter kits to its patrons. This empowers users to better understand their energy usage. It promotes resource efficiency by giving patrons the information they need to make choices about energy conservation.

Principle 2: Localizers should build community and foster connections between neighbors

The two social network platforms that we studied both leverage community connections. Users must be a member of the local community in order to join. Once a member of the platform, a user is then connected to his/her neighbors. Sharing of goods and services takes place between the user community and not dependent on the inventory of a third-party organization.

Principle 3: Localizers should work within their community to preserve and grow a locally relevant body of knowledge about how to get the things done that need to happen under energy descent.

The Growing Hope tool lending library is connected to a broader program focused on building gardening and food preservation skills within the community. In addition to offering books and links to helpful websites, Growing Hope holds trainings and workshops to empower participants to grow their own food.

Principle 4: Localizers working in relatively affluent areas should recognize a responsibility to help less affluent communities, at a minimum by sharing their successes and failures freely.

West Seattle tool library organizers did this by creating and publishing resources about their experiences online. Other groups might do this by starting ongoing relationships with activists working on similar issues in less affluent parts of Washtenaw County or in Detroit.

B. Opportunities for Tool Libraries

The distinction between someone working to strengthen self-sufficiency and resilience—a localizer—and a tool librarian may not be a strong one. However, the following opportunities are available to operators of tool libraries and similar lending systems regardless of whether they consider themselves localizers.

Tool library operators faced with declining inventory and/or grants for new tools have an opportunity to balance advertised features with long-term suitability to community needs.

As such, they should consider Section III, especially III.A. “Guiding Questions for Tool Choice,” when expanding and replacing inventory.

Operators of tool lending systems, regardless of whether they consider themselves tool librarians, have an opportunity to network with tool lenders across the country and across the globe.

When considering expansion, funding, and other changes, operators can learn from Tool Lending

Libraries across the globe through resources, stories and personal connections. The resources in Section II.H. “Further Reading” should be good starting points.

Operators of current and potential tool lending libraries have an opportunity to work with local partner organizations to accomplish shared goals and to avoid duplication of effort. Organizations need not avoid service area overlaps completely; indeed the hierarchy of lending libraries mentioned earlier could easily emerge organically from multiple complementary groups operating in an area. Related organizations include at least reskilling initiatives, municipal and university libraries, Grange halls, recycling initiatives, and thrift shops.

C. Conclusion

There is a clear and exciting connection between tool libraries and localization. Although tool libraries may need to adapt in order to prepare (and help communities prepare) for the coming energy downshift, tool libraries already represent positive case studies of localization in action. Indeed, localizers can look to tool libraries to identify principles of localization and opportunities to begin reaping the benefits of localization today.

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- ¹⁷ Gas-powered tools also present issues with filling, spills, and safety. Most tool libraries don't carry them.
- ¹⁸ "The University of Michigan – Ann Arbor Enrollment by Type of Entry, Class Level, School or College, and Gender For Term 1860 (Fall 2011)," University of Michigan, accessed November 25, 2012, <http://www.ro.umich.edu/report/11fa105.pdf>
- ¹⁹ "University of Michigan – Ann Arbor Faculty and Staff Headcounts," University of Michigan, accessed November 25, 2012, http://sitemaker.umich.edu/obpinfo/files/umaa_faculty_staff_11.pdf
- ²⁰ The U.S. Census Bureau defines poverty status as "income in last 12 months below federal poverty level."
- ²¹ The U.S. Census Bureau calculates food stamp recipient as the "percent of households receiving food stamps/SNAP in past 12 months."
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