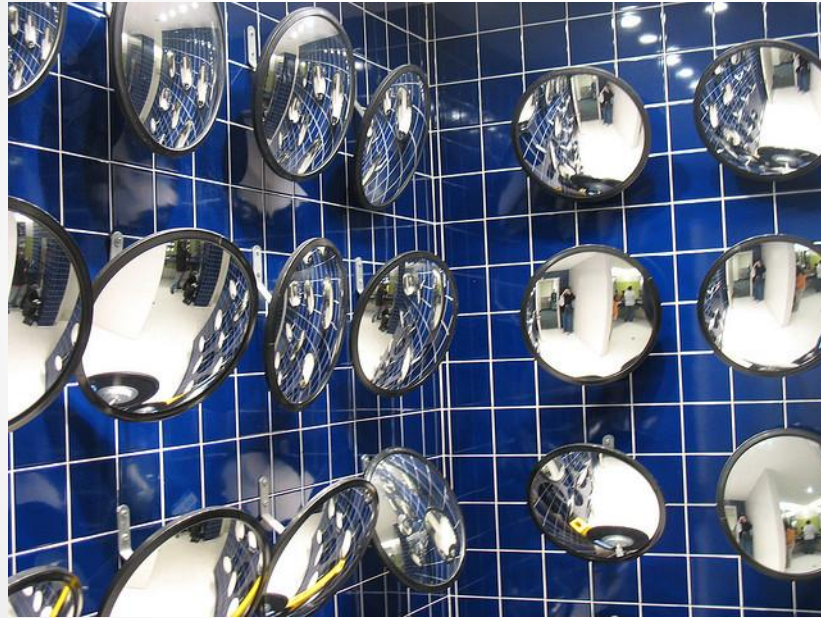


A workshop or makerspace with a white pegboard wall. The wall is covered with various tools, including wrenches, screwdrivers, pliers, and a saw. There are also safety signs, including a "DANGER HARD HAT AREA" sign and several "PELIGRO" signs. The background wall is made of plywood and has "OBRA PELIGRO" and "HOMBRES TRABAJANDO" written on it. The foreground shows a workbench with a blue vise, a blue vise, and a blue vise. There are also some orange and blue containers on the workbench. The overall scene is a well-equipped workshop.

# Making It Real: Why a Makerspace Might Make Sense for Your Library

John Burke  
Miami University Middletown  
OLSSI 2015

# Any makers out there?



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# What are makerspaces?

- A place, or not
- Shared knowledge
- Shared tools
- Hands-on learning
- Co-working
- Open design culture

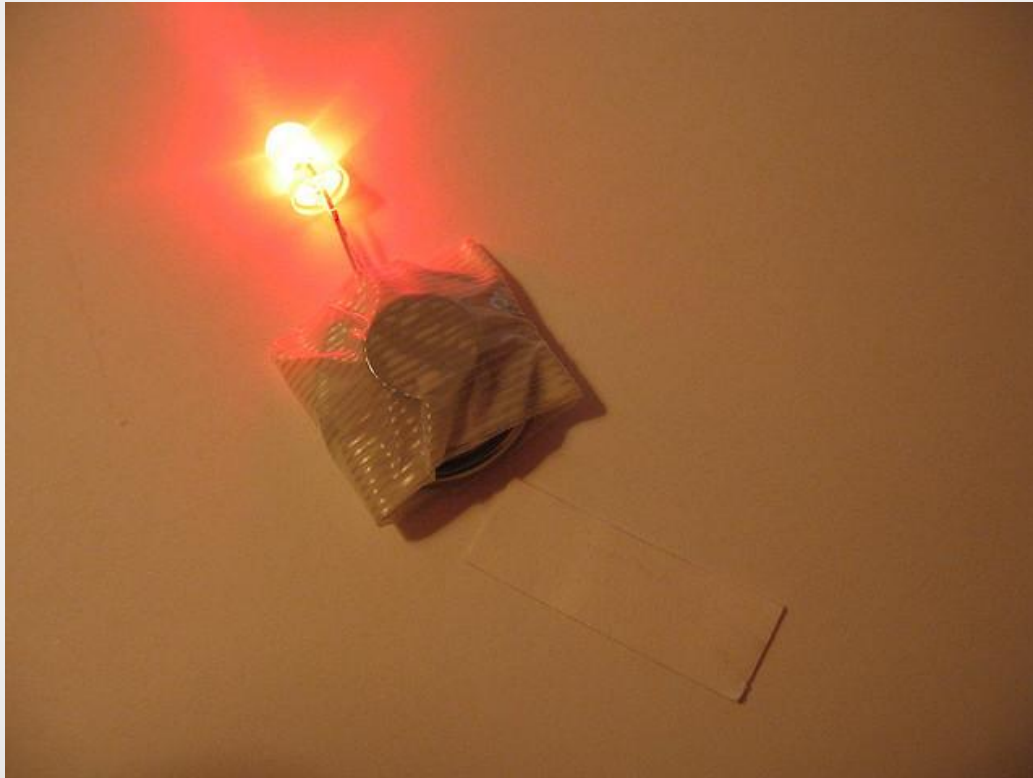


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# The name game - a little history

- hackerspace
- FabLab
- TechShop
- makerspace (or maker space)

# Let's make something!



LED Throwies with On/Off Tab. Image provided through a CC BY-NC 2.0 license by Alan Joyce. <https://www.flickr.com/photos/everythingdigital/sets/72057594069888500/>

# Maker movement motivations

- “Maker Movement Manifesto”
- Lone makers → collaborative settings
- Teaching/guiding
- Sharing ideas and designs
- Co-working on projects
- Tinkering and play

Open MAKE: Tools. Image provided through a CC BY 2.0 License by Exploratorium. <https://flic.kr/p/bGJCRv>



# Why libraries as a location?

- Making is already part of our mission
- Libraries are already makerspaces
- A community space
- Support education and STEM



Sewing at the Maker Faire. Image provided through a CC BY 2.0 License by Jon Callas (joncallas). <http://www.flickr.com/photos/joncallas/7230408600>.

# Why might a library want one?

- Hands-on learning
- Co-working
- Self-directed learning
- STEM education
- Prototyping
- Tinkering
- Open culture



# Library Makerspaces Survey

- October/November 2013
- 14 questions
- 109 respondents
- 51% public, 36% academic, 9% school
- 30 U.S. states, 7 other countries
- 46% had less than 1 year of operation
- 11% 2+ years of operation

# What do people make in them?

<u>Technology or Activity</u>	<u>#/libraries</u>	<u>% of all respondents</u>
Computer workstations	73	67%
3D printing	50	46%
Photo editing	49	45%
Video editing	47	43%
Computer programming/software	43	39%
Art and crafts	40	37%
Scanning photos to digital	39	36%
Creating a website or online portfolio	37	34%
Digital music recording	36	33%
3D modeling	34	31%
Arduino/Raspberry Pi	33	30%
Other	33	30%
Animation	31	28%
High quality scanner	31	28%
Tinkering	28	26%

# Motivation responses

“When people ask you why you have a makerspace, what do you tell them?”

90 respondents answered

Coded responses into categories



# Sample responses

“We want to provide an on-ramp to the larger Maker Movement, as well providing the community access to technology beyond items normally purchased for home use.”

“The library needs to support all literacies and encourage students to become content creators, rather than content consumers.”

“I say that the whole library is a makerspace,  
we just make scholarship.”

“3D printing is as game changing today as the printing press was in 1450. We simply must make this technology freely available so that our citizens can have the opportunity to master it, lest they be mastered by it.”

“So there is a free community spot to create and get to know other community members. To share expertise and learn from one another.”



“Not only do we continue to do the important work of preservation and access as we have done all along, but increasingly there is an expectation that libraries will support content creation.”

# Most popular motivations

- Learning (34)
- Collaboration (25)
- Access (23)
- Expanding services (18)
- Library mission (16)
- Individual creation (15)

# Least common motivations

- Cross-curricular/multi-disciplinary (4)
- Business/workforce development (4)
- Teens/kids (7)
- 21st century (7)
- STEM (9)
- Hands-on (10)

# Differences by library type

## Academic

(learning, access, collaboration, library mission)

## Public

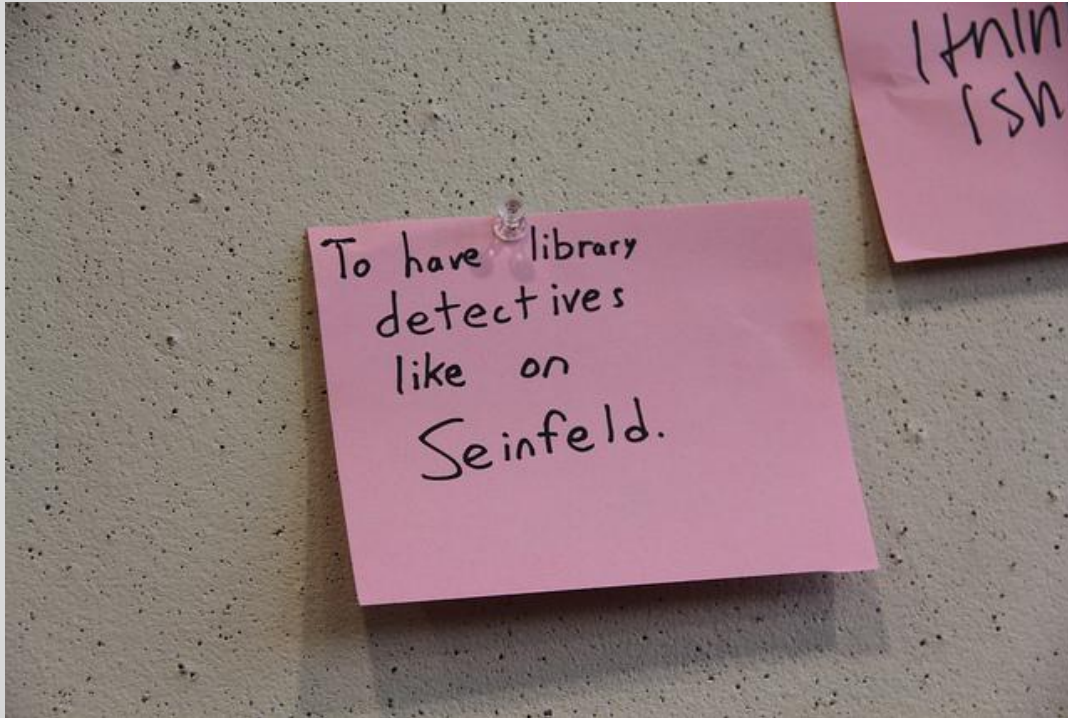
(learning, collaboration, access, expanding library services, library mission, individual creation)

## School

(tinkering, learning, individual creation, cross-curricular, collaboration, STEM)

**Why consider a  
makerspace?**

# The library's mission



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# Community needs



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# Access to services/materials/skills



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# Possible funding sources



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# Library administration support



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# Collaborative partnerships



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# Staff interest/experience



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# **Questions to answer about your makerspace**

# Clean or dirty? Or both?



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# An open lab, or classes/workshops?



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# Staffed, or checked/maintained?



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# Noisy?



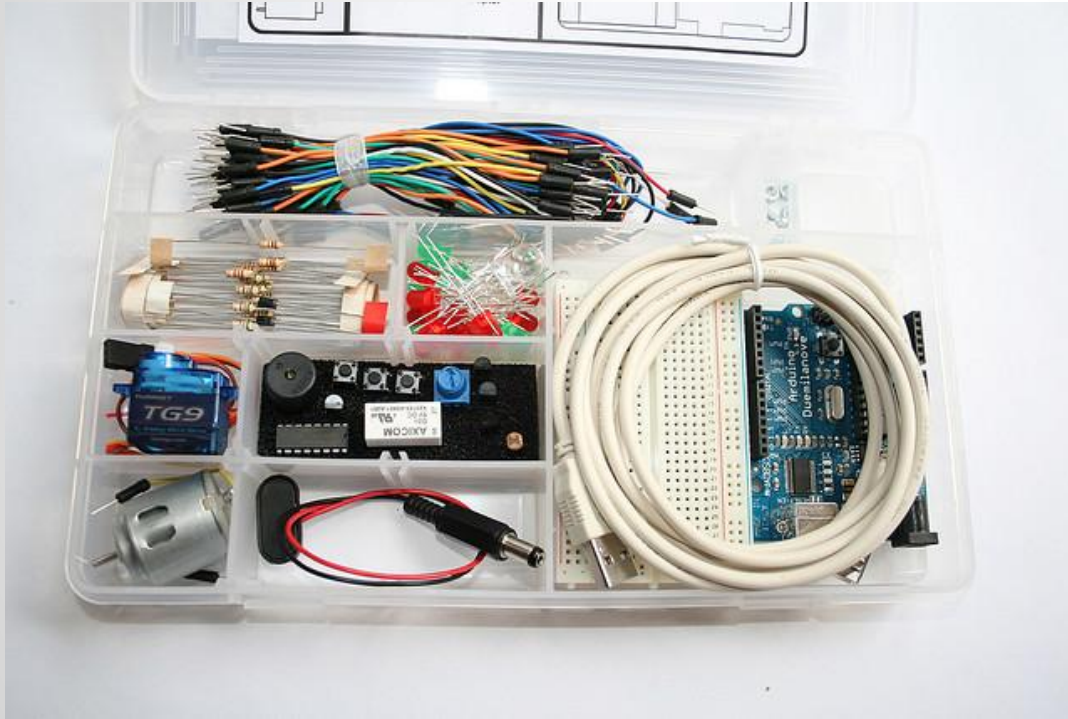
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<https://www.flickr.com/photos/streamishmc/>

# Dedicated space, or mobile making?



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# In-house, or circulating technology?



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# Funding: budget, fees, grants?



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**Time, space, money,  
interest in experiential  
learning**

# Steps to get started

1. One-off activities
2. Ongoing meetups
3. Temporary tools and kits
4. Clean labs
5. Dirty labs

Good, Travis. 2013. "Making Makerspace Libraries." ILEADUSA2013. YouTube. March 28. [http://www.youtube.com/watch?v=WV\\_Eu5Kz1cA&feature=youtu.be](http://www.youtube.com/watch?v=WV_Eu5Kz1cA&feature=youtu.be)

# Additional resources

- Makerspaces in Libraries Survey Results
- Makerspace Resources
- Makerspaces: A Practical Guide for Librarians (Rowman & Littlefield, 2014)

# Questions?

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<https://goo.gl/dX5nnX>