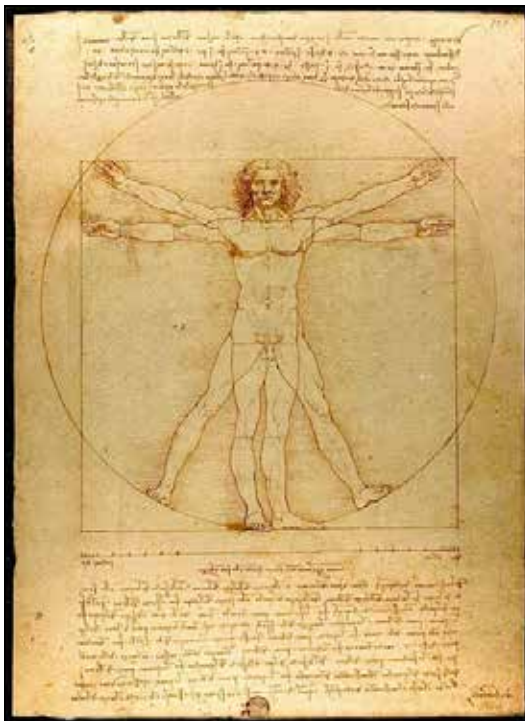


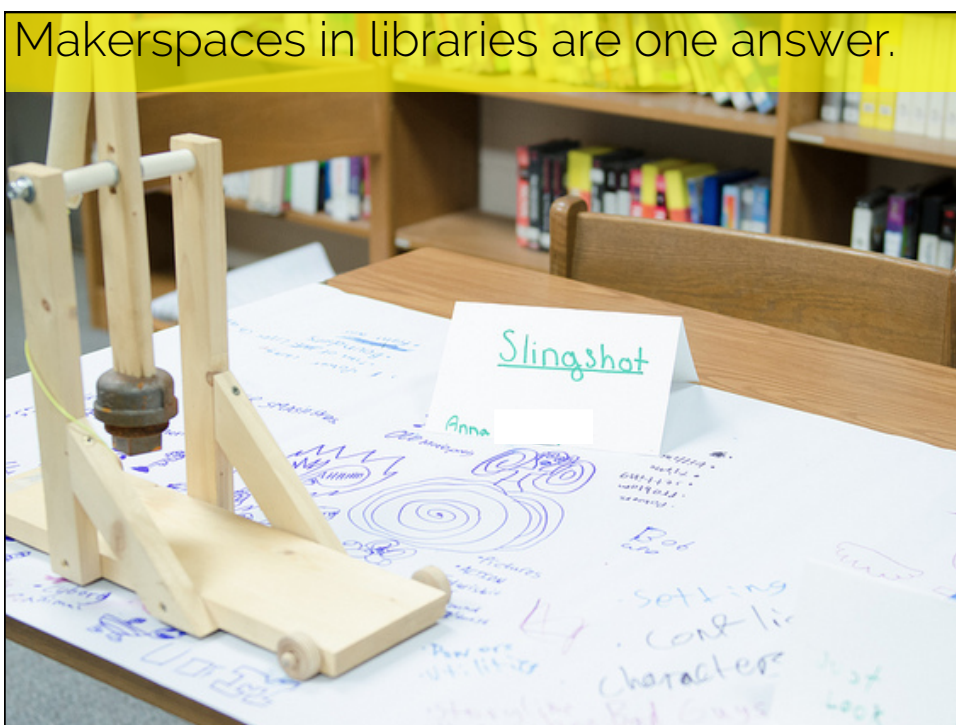


## Today's Agenda

- Who are makers?
- What is a makerspace?
- Rules of thumb for library makerspace success



Who are makers?











Ann Arbor Modern Quilt Guild at Maker Works, Ann Arbor  
<http://www.maker-works.com/content/ann-arbor-modern-quilt-guild>

And so is this.



## Library Makerspaces: "On-ramps"

- MARK ANDERSEN, CHICAGO PUBLIC LIBRARY

## Ten Rules of Thumb for Makerspace Success



### #1: Know your purpose.

Entertain? Inform? Educate?

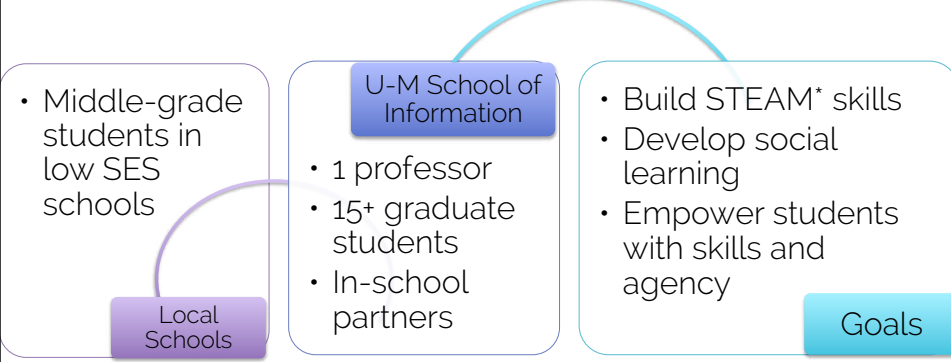
Enhance academics? Fill a void in academics?

Introduce concepts and tools or provide them for savvy users?

Create an extended community? Serve as an-ramp?

Welcome new patrons? Provide new services for existing patrons?

## Makerspaces as Service Learning: UMSI's Michigan Makers project



\* STEAM = Science, Technology, Engineering, Art/Aesthetics, Mat

Programming/Coding				
HTML	Arduino	Scratch	Raspberry Pi OS	Python
Drawing and Prototyping				
Mini Comics	ComicCon	Sketching circuits	Game Design	Visit to U-M 3D Lab
Paper and Fabric Craft				
Origami	Gift Wrapping (!)	Make Your Own Bows (!)	Sewing Safety Badge	Soft-sculpted pieces
Social Growth				
Makerspace Culture	Collaborative Work	Gradual Release of Responsibility	Peer Coaching & Leadership	Digital Citizenship





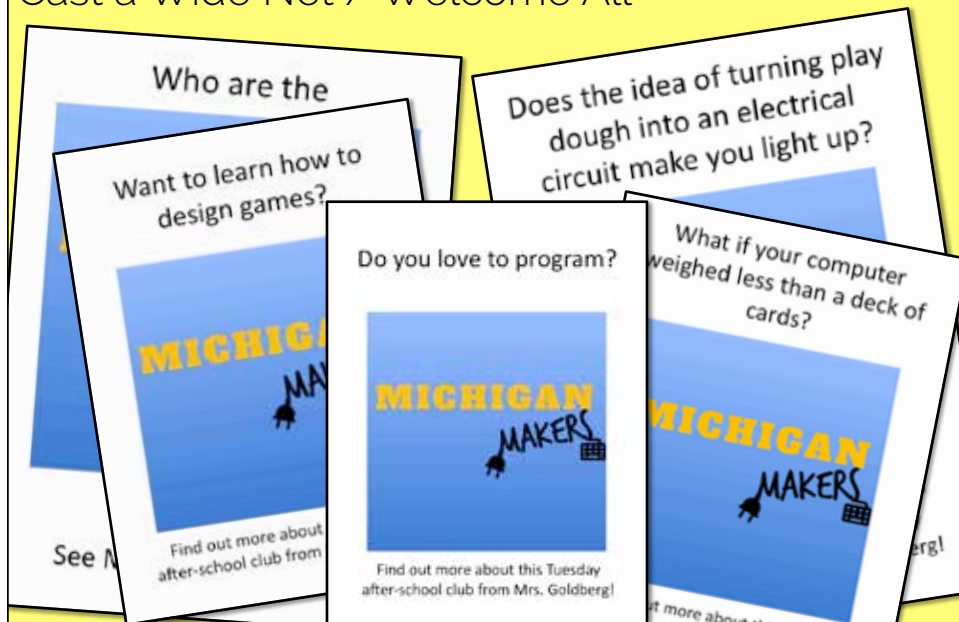
#2:  
Embrace Open Source Thinking.



#3:  
Partner – Don't Compete – With Others



#4:  
Cast a Wide Net / Welcome All



#5:  
Match mentors with learners.





**East Middle School**  
1042 S. Mill Street • Plymouth, Michigan 48170  
Phone: 734 / 416-4950 • Fax: 734 / 416-4949  
A Michigan Department of Education Accredited School

**PLYMOUTH-CANTON  
Community • Schools**  
  
Scott Busak  
Principal  
Christopher Morak  
Assistant Principal


4/24/13  
To whom it may concern,

I am writing about Michigan Makers, an after-school program at East Middle School. In Michigan Makers, you learn differently than you would in a regular classroom. You learn about how to make an endless list of things. Makers learn how to work with programs like Scratch. They also learn about things that other makers around the world have created, like Arduinos, and the Raspberry Pi. Makers learn about other concepts like board game design, conductive clay, 3D printing, making comics, and sewing too. With all these things, you are free to use your creativity in coming up with your own creations. But it's much more than that. Along the way, you learn about teamwork and problem solving. You meet other people who have completely different brains and ideas and thoughts, and who have the same interest in making that you do.

The graduate students came every week to our school. They spent tons of their time to make it work, and they taught us so much. They were very patient, and endured all of our questions. They made the learning fun, and actually learned with us too. The students encouraged us to step out of what we were used to doing. We could show our projects and creations to them, and they would give us helpful feedback. They would give us their honest viewpoints: what was great, and what we could fix. They didn't teach us by handing us textbooks and assignments. They taught us by guiding us, then letting us figure things out on our own and solve problems in our own way.

The main thing I got out of Michigan Makers is a love of making. I met fascinating people. I got an understanding of how to use different programs and new skills. I also got many more ideas for cool projects I could work on in the future.

A school/library/community center/company should hire the graduate students because they are very dedicated. They have a lot of patience and know how to work well with people. They are enthusiastic about every idea. They have tons of amazing ideas, and they can make anything possible.

Sincerely,  
  
Himaja

In Michigan Makers ... you are free to use your creativity in coming up with your own creations.

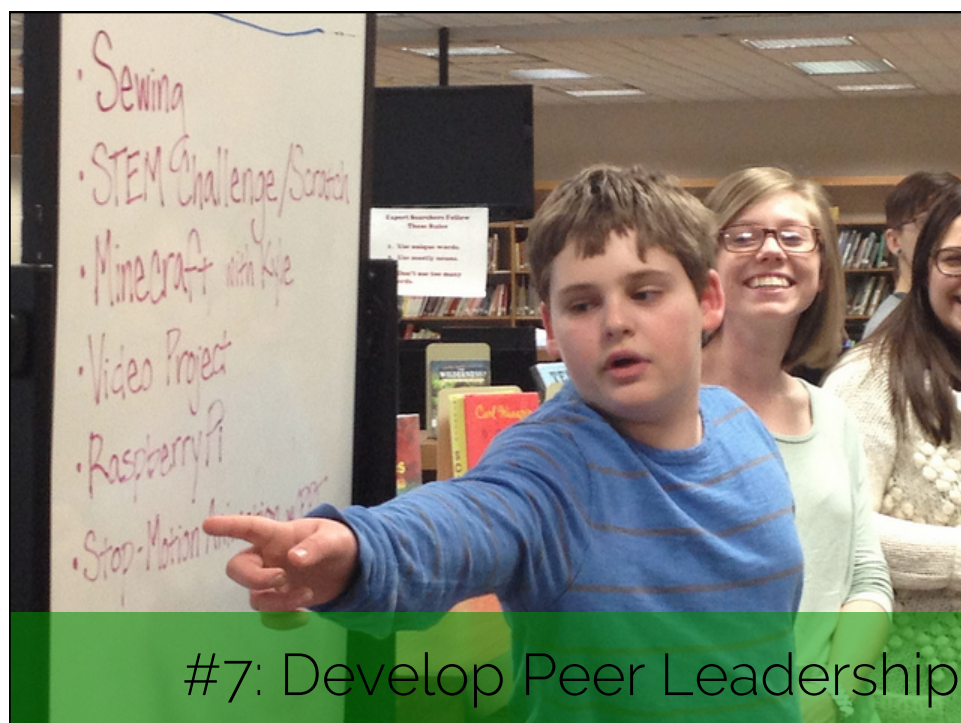
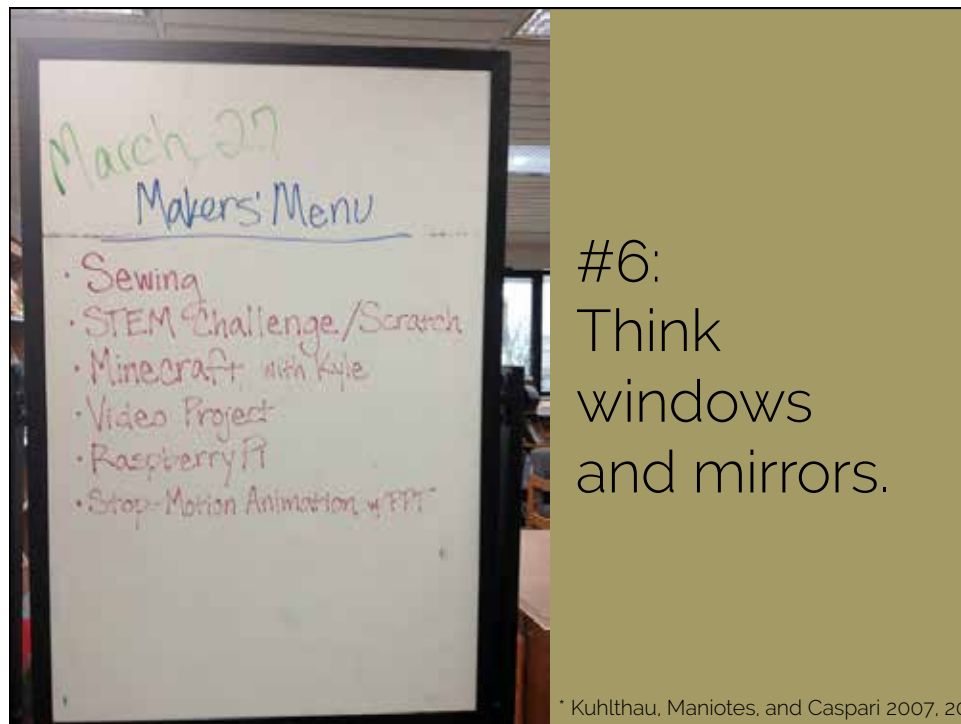
But it's much more than that. Along the way, you learn about teamwork and problem solving.

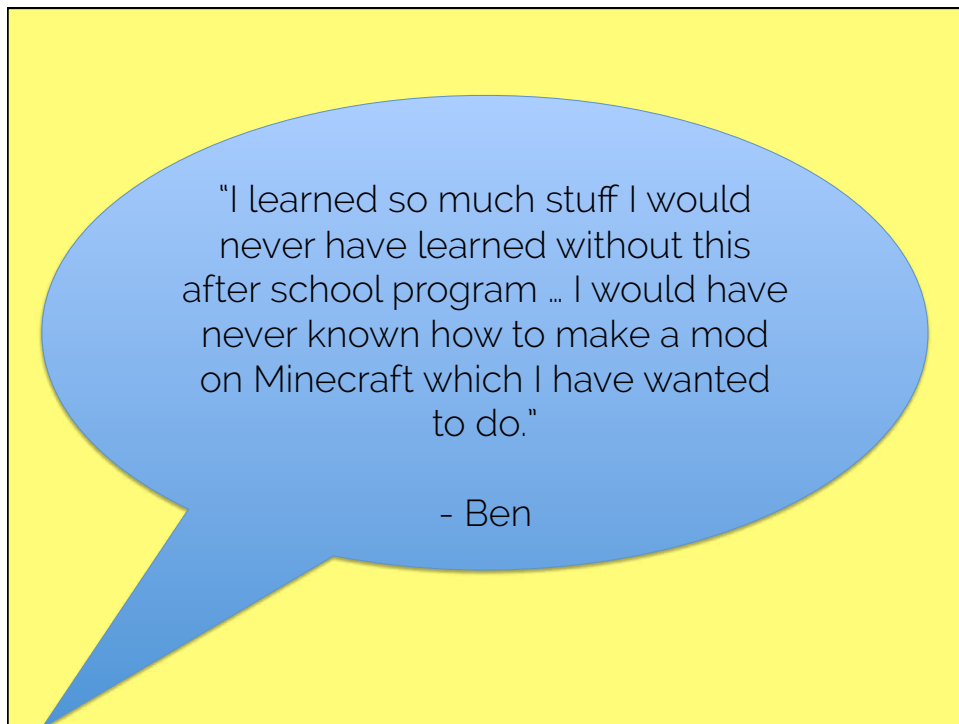
You meet other people who have completely different brains and ideas and thoughts, and who have the same interest in making that you do ...

The [graduate] students encouraged us to step out of what we were used to doing. They taught us by guiding us, then letting us figure things out on our own and solve problems in our own way.

Corollary:  
Redefine "teacher" and "learner."











## #10: Extend reach of accomplishments beyond the library.

badg.us

Awarded Badge: I Conquered the Squishy Circuits Pig Challenge!

**Image:**

**Awarded to:**

**Awarded by:**

**Awarded at:** 2013-02-06 10:58:07

**Actions:** [Delete award](#)

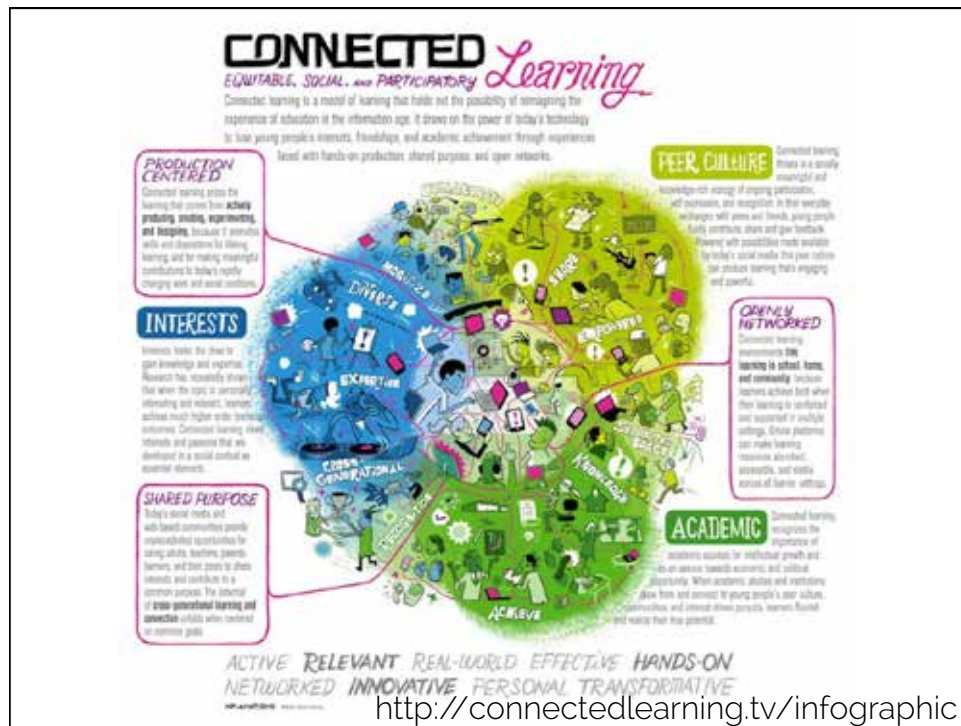
**Share:** [Tweet](#) [Share](#) [Like](#) [Send](#) [Sign up to see what your friends like.](#)

**Description:** The holder of this Michigan Makers badge successfully demonstrated teamwork and the ability to create a pig with two LED lights and a motorized tail from a single battery pack.  
We reviewed evidence in a face-to-face format. Additional evidence will be online at: <http://michiganmakers.badg.us>

**Image:** "Squishy Pig" by Jettabelle on Flickr. Used with a Creative Commons Attribution 2.0 License. <http://www.flickr.com/photos/jettabelle/7311857802/>


**Tags:** [squishy circuits](#) [electrical circuits](#) [michigan makers](#)

**Creator:**





Join us!  
<http://makerbridge.si.umich.edu>  
 created by Sharona Ginsberg



Page Count: 32 pages  
 Book Size: 7 1/2" x 8 1/2"  
 List Price: \$28.50  
 S/A Price: \$19.95

Interest Level: 4-8  
 Reading Level: 5-6

available  
 eBooks  
 and in paperback

**21st Century Skills Innovation Library:  
 Makers as Innovators**


Some of today's most incredible innovations are coming from the global community of makers. These thinkers, inventors, and hackers share information and technology to push new ideas forward. Readers will discover how they can join the maker movement and help improve the way we live.

**21st Century Skills INNOVATION LIBRARY**

21st Century Skills Innovation Library:  
 Makers as Innovators  
 Complete set of 8: \$159.60 S/A - \$128.00 List

ISBN	DATE	ISBN	DATE	ISBN	DATE
Makers as Innovators (11 Titles)	978-1-62401-510-2				
3D Printing	978-1-62401-510-3	Arduino	978-1-62401-512-6	Digital Badges	978-1-62401-543-7
E-Textiles	978-1-62401-543-8	Game Design	978-1-62401-543-9	Maker Faire	978-1-62401-543-0
Makerspaces	978-1-62401-543-1	Raspberry Pi	978-1-62401-543-2		

NEW FOR FALL 2013



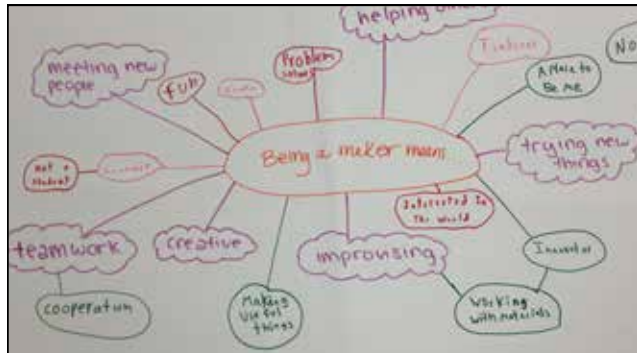
CALL: 1-866-918-3956 FAX: 1-866-489-6490 ONLINE: [www.cherrylakepublishing.com](http://www.cherrylakepublishing.com)

Check out  
 what we've  
 learned!

[http://bit.ly/  
 clp-makers](http://bit.ly/clp-makers)

Series is  
 CC BY-NC-SA





## Michigan Makers Team: Year One

Kristin Fontichiaro \*  
Kelsey Forester  
Sharona Ginsberg  
Rachel Goldberg \*  
Victoria Lungu  
Shauna Masura \*  
Rachel Moir  
Caroline Mossing  
Terence O' Neill \*  
Samantha Roslund \*  
Jessica Schmidt

\* co-founders

## Questions?

{ @activelearning  
font@umich.edu  
Slides: <http://bit.ly/fontblog>  
About MM: <http://umsi.info/makers>