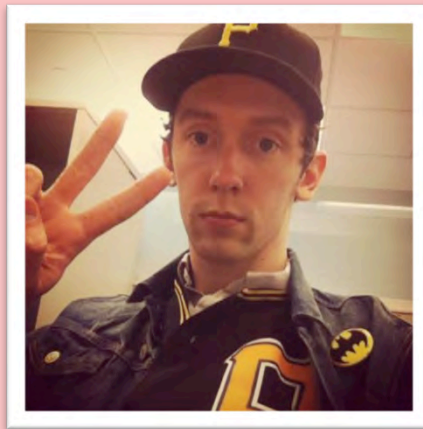


Teen Learning Labs

Presented by Corey Wittig
Digital Learning Librarian



Key Concepts of Informal Learning in Libraries



- Mentor Led
- Interest-based
- Youth-centered
- Collaborative learning
- Traditional and Digital Media

What are YOUmedia Learning Labs?

Learning Labs are spaces where young people can explore, express, and create using digital media. They are guided by a core philosophy that youth are best engaged when they're following their passions, collaborating with others, and being makers and doers, not passive consumers. Learning Labs respond to the interests of the young people themselves, their leadership, and their participation. And they help young people develop skills that are relevant to them—and that have a pay-off in the real world.

There is no one formula for Learning Labs, but they do share common characteristics derived from the principles of Connected Learning:

- ▶ a welcoming and inclusive physical space designed to promote exploration, tinkering, and production;
- ▶ online opportunities to connect and extend learning through critique, collaboration, and sharing;
- ▶ programming that nudges youth to stretch their imaginations and abilities and build new skills;
- ▶ badging, showcases or other options for documenting new skills and recognizing learning;
- ▶ equipment that fosters 21st century skills in digital media and making, and
- ▶ mentoring that makes it all happen.

History of Teen Learning Labs in Libraries



Thank you for visiting us.

YOUmedia is a 21st century teen learning space at Chicago Public Library. YOUmedia began in 2009 when the John D. and Katherine T. MacArthur Foundation approached the Digital Youth Network and Chicago Public Library about opening a digital teen space.

The YOUmedia partnership between Chicago Public Library and the Digital Youth Network concluded in December of 2013. However, both organizations continue to serve the youth of Chicago through innovative and ground-breaking programs and initiatives. To learn more about the current work of the Digital Youth Network and the continuing work of YOUmedia at Chicago Public Library, please visit the following links.

YOUmediaChicago.org

President Obama's "Educate to Innovate" program

Educate to Innovate



"One of the things that I've been focused on as President is how we create an all-hands-on-deck approach to science, technology, engineering, and math... We need to make this a priority to train an army of new teachers in these subject areas, and to make sure that all of us as a country are lifting up these subjects for the respect that they deserve."

President Barack Obama
Third Annual White House Science Fair, April 2013

Whitehouse.gov

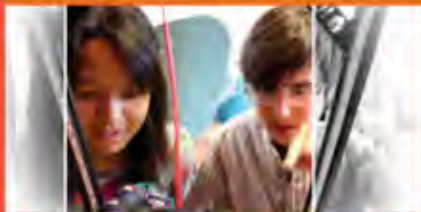
Research/Reports & Takeaways



Dmlhub.net

"This model is based on evidence that the most resilient, adaptive, and effective learning involves individual interests as well as social support to overcome adversity and provide recognition."

Learning Labs in
Libraries and Museums:



IMLS "Learning Labs in Libraries and Museums" report, 2014

Learning Labs:

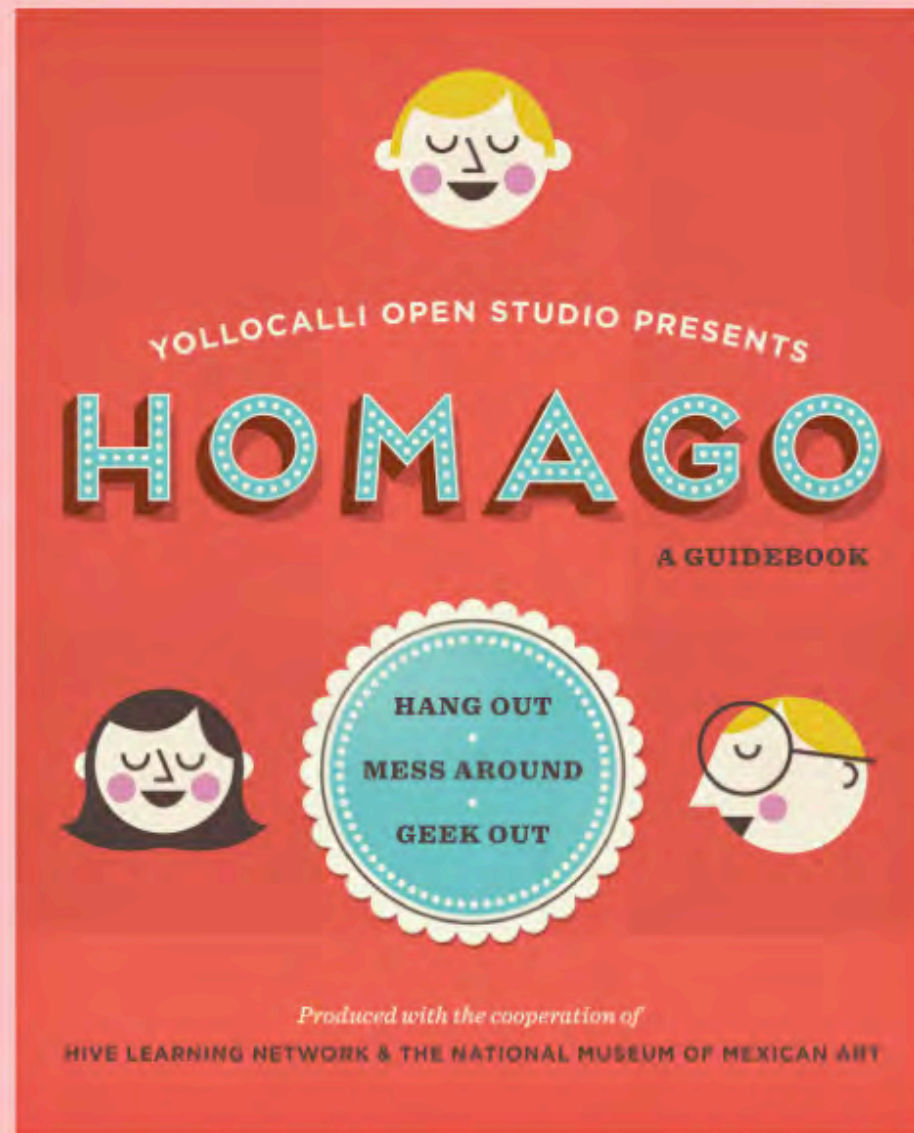
- Are places where youth of diverse backgrounds can connect with one another and adult mentors
- Provide access to new media, with a mix of digital and traditional tools
- Emphasize interest-driven and production-centered learning
- Provide new contexts for youth to build skills and gain
- Capitalize on community resources through collaboration



YALSA
Futures
Report,
2013
ALA.org

"42 million adolescents face an increasing array of social issues, barriers, and challenges that many of them are unable to overcome on their own...Now is the time for public and school libraries to join other key stakeholders and take action to help solve and alleviate the issues and problems that negatively impact teens."

Hanging
Out
Messing
Around
Geeking
Out



"Yollocalli Open Studio Presents HOMAGO a Guidebook", DMLcentral.net

HOMAGO

The critical turning point in our understanding of HOMAGO began when we reflected on adultism and started think more critically about youth creative capacity in the context of art education. We were seeing young people engage in productive art making activities while they were on their phones, chatting with friends, playing music, looking up things online, and we had to confront our own biases of what productive young people looked like. With that, HOMAGO Open Studio went from feeling chaotic to looking like a studio full of hard working and happy young artists. We started to observe patterns and create connections to what we already valued in traditional classrooms, including differentiated instruction, universal access, student-centered and inquiry-based learning, and light bulbs began to go on. Most of all, it was so exciting to be a space in which teens learn to create their own path to pursue their artistic goals, in partnership with an adult mentor.

"Yollocalli Open Studio Presents HOMAGO a Guidebook", DMLcentral.net

Connected Learning Theory

CONNECTED *Learning*

EQUITABLE. SOCIAL. AND PARTICIPATORY

Connected learning is a model of learning that holds out the possibility of reimagining the experience of education in the information age. It draws on the power of today's technology to fuse young people's interests, friendships, and academic achievement through experiences laced with hands-on production, shared purpose, and open networks.

PRODUCTION CENTERED

Connected learning prizes the learning that comes from **actively producing, creating, experimenting, and designing**, because it promotes skills and dispositions for lifelong learning, and for making meaningful contributions to today's rapidly changing work and social conditions.

INTERESTS

Interests foster the drive to gain knowledge and expertise. Research has repeatedly shown that when the topic is personally interesting and relevant, learners achieve much higher-order learning outcomes. Connected learning views interests and passions that are developed in a social context as essential elements.

SHARED PURPOSE

Today's social media and web-based communities provide unprecedented opportunities for caring adults, teachers, parents, learners, and their peers to share interests and contribute to a common purpose. The potential of **cross-generational learning and connection** unfolds when centered on common goals.

PEER CULTURE

Connected learning thrives in a socially meaningful and knowledge-rich ecology of ongoing participation, self-expression, and recognition. In their everyday exchanges with peers and friends, young people fluidly contribute, share and give feedback. Powered with possibilities made available by today's social media, this peer culture can produce learning that's engaging and powerful.

OPENLY NETWORKED

Connected learning environments **link learning in school, home, and community**, because learners achieve best when their learning is reinforced and supported in multiple settings. Online platforms can make learning resources abundant, accessible, and visible across all learner settings.

ACADEMIC

Connected learning recognizes the importance of academic success for intellectual growth and as an avenue towards economic and political opportunity. When academic studies and institutions draw from and connect to young people's peer culture, communities, and interest-driven pursuits, learners flourish and realize their true potential.



ACTIVE RELEVANT REAL-WORLD EFFECTIVE HANDS-ON
NETWORKED INNOVATIVE PERSONAL TRANSFORMATIVE

EXPLANATIONS © 2012 Drexler Group

Connected Learning Research Network and Digital Media & Learning Research Hub

The library is a natural site for community-based informal education

"Libraries have a strong role in connected learning because they can help teens connect to people and resources that support their personal formal and informal interests."

- Jack Martin (Executive Director, Providence Public Library & YALSA past-president), Martin, Jack, Wittig, Corey, Strock Adrienne, "Library Service for Teens: Who we are we? What are we? And, where are we going?", Young Adult Library Services, Fall 2014, pg. 5)



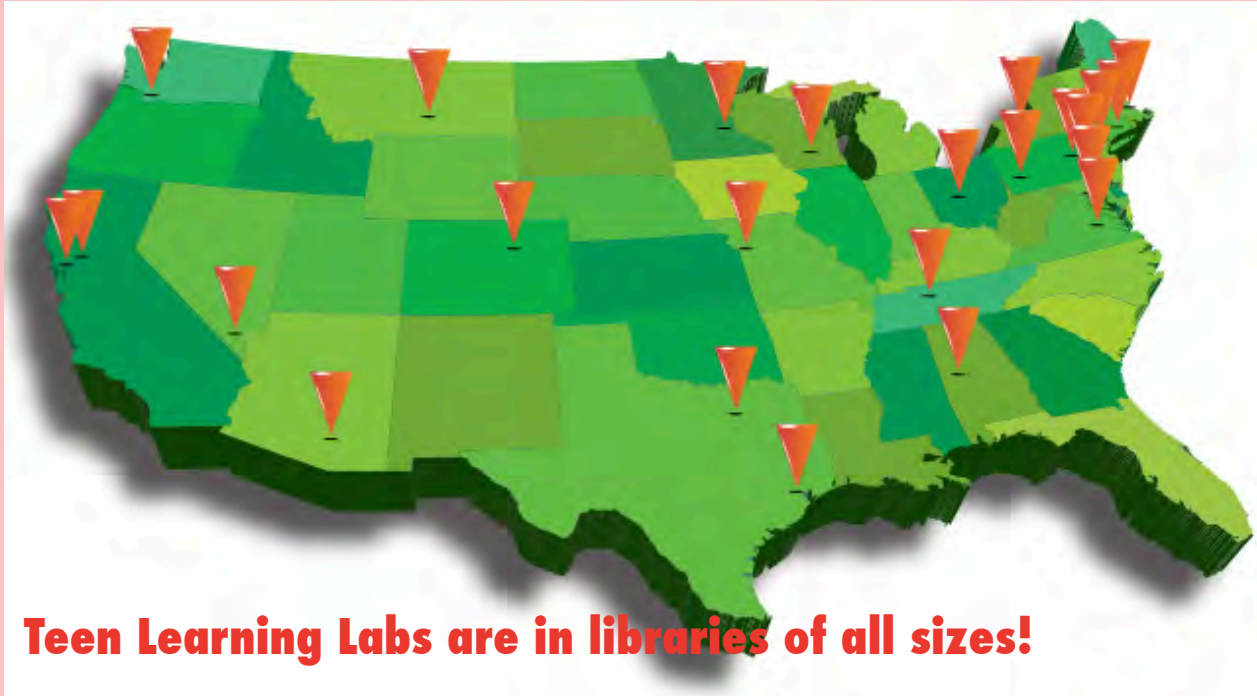
MAKER-CENTERED LEARNING AND THE DEVELOPMENT OF SELF:
PRELIMINARY FINDINGS OF THE AGENCY *BY* DESIGN PROJECT

A WHITE PAPER PRESENTED BY AGENCY *BY* DESIGN
PROJECT ZERO, HARVARD GRADUATE SCHOOL OF EDUCATION

JANUARY 2015

That is not to say that students don't develop technical skills along the way. But, for the educators we spoke with, technical skills and expertise are by-products in the service of the larger outcome of self-development. To focus on STEM skills and the like as the primary outcome of maker education would be to sadly miss the point—like saying that learning to cut your food with a knife and fork is the most important outcome of eating a nutritious meal. In contrast, what we have been hearing from maker practitioners on the ground is the power of maker-centered learning to help students develop a sense of personal agency, a sense of self-efficacy, and a sense of community.

Successful Learning Labs



Teen Learning Labs are in libraries of all sizes!

Learning Labs in Libraries and Museums: Transformative Spaces for Teens, IMLS.gov

Here are some early standouts:

- **YOUmedia (Chicago Public Library)**
- **The Bubbler (Madison Public Library)**
- **The Studio (Anythink, Rangeview Library District)**
- **Information Commons (Brooklyn Public Library)**
- **Maker Jawn (Free Library of Philadelphia)**
- **Studio NPL (Nashville Public Library)**
- **Teen Central and IMAGINEYOU (Rochester Public Library)**

Translating Research into User-Centered Programming

DESIGN THINKING FOR LIBRARIES

A TOOLKIT FOR PATRON-CENTERED DESIGN

Connect the research to

- your community
- Strategic Plan
- Program Design
- Your vision of the future of your library



designthinkingforlibraries.com

Outcomes of Successful Learning Labs

Outcomes point to:

- A supportive and safe environment for developing interests and expertise
 - Intergenerational relationships centered on shared interests, identity, and mutual respect
 - A safe peer culture that values intellectual and creative excellence
- Exposure to a breadth and depth of interests
 - Discovery of new interests
 - Deepening and extending existing interests
- Connecting interests to opportunity in the wider world
 - Publicity and recognition for their skills
 - Orientation toward academics and career



Outcomes should be collective and personal

Learning Labs in Libraries and Museums: Transformative Spaces for Teens, imls.gov

There is no "one-size fits all" teen learning lab

Learning Labs don't have to be large
MakerSpaces or fablabs to create the
desired learning outcomes



Reusable Tools List

JOINING

- staple gun
- hot glue gun
- hot glue gun
- pop riveter
- box rivets
- big sewing needles
- paint brushes (1" and 3")
- straight pins
- splice set
- tap and die (SAE + Metric)

MECHANICAL

- screwdriver (precision)
- screwdriver
- allen (SAE)
- claw hammer
- mallet
- combination
- ratchet set
- joint pliers
- miter box
- PVC pipe
- socket set
- driver bits
- hollow-sha

CUTTING

- hole saw
- metal file(s)
- file card
- chisel/rasp set
- tin snips
- box knives
- X-acto knife
- scissors
- drill bits
- sanding block
- hacksaw
- wood-saw
- block plane
- deburring tool
- countersink
- awl
- cutting mat
- hand-crank (rotary) craft drill

FIXTURING

- vise
- C-clamps
- bar clamps
- needlenose
- locking pliers
- adjustable wrench
- binder clips
- locking pliers

BATTERIES /

- AA NiMH
- AA NiMH
- 9V battery
- 4 AA batte
- 3 AA batte
- 2 AA battery holder

STORAGE TOOLS

- containers
- labels
- camera
-
-
-

POWER TOOLS

- jigsaw (electric)
- sewing machine
- drill

- laser cutter



Teen from the Free Library of Philadelphia displays E-textile jewelry. Photo by MakerJawn.

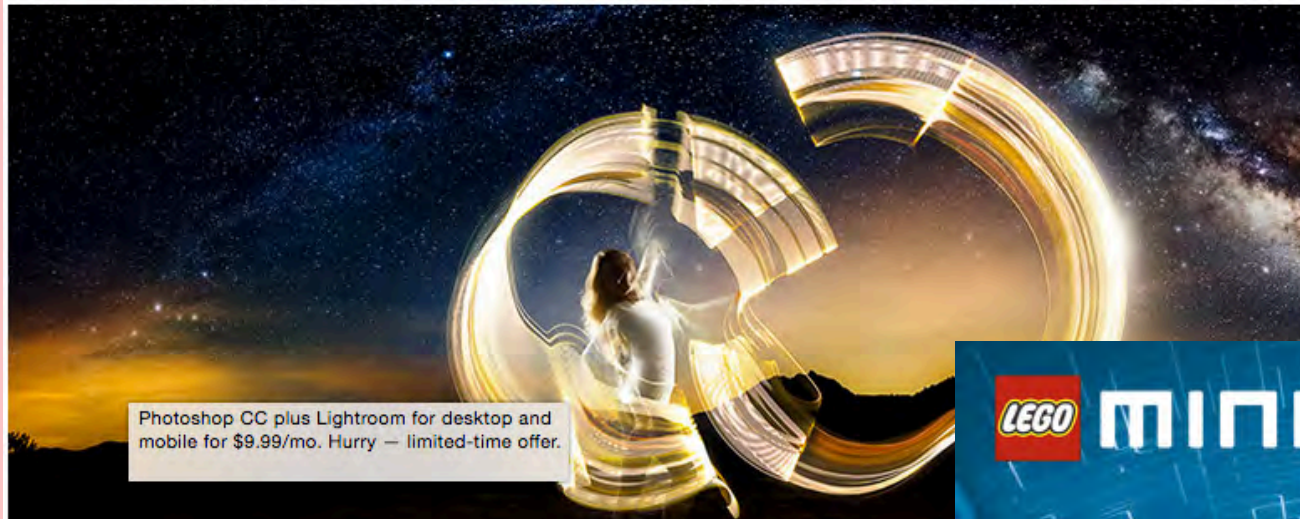
IMLS Report

Common Equipment in Learning Labs

"Before you go on a shopping spree and max out your credit card assess what your Makerspace will actually require."

Popular Software

Adobe Photoshop family



The new Adobe Creative Cloud Photography plan.

All-new Photoshop CC plus Lightroom desktop

Join now

Smovie for Mac

Beautifully simple stop motion animation

Final Cut Pro X

Unprecedented power for the next generation



SketchUp



Audacity



Download free trial

Download on the
Mac App Store

Only \$39.99

The popularity of Learning Labs

There is need.

- A way to track the learning that happens in our libraries
- A way of engaging teens
- A way to spread “transliteracy”
- A necessary public service for disempowered, underprivileged teenagers



Choosing the right tools and programs for your space



Louisville Public Library
Makerspace Survey, July 2014

The Louisville Public Library, in collaboration with the Space Science Institute, is working on a program to bring digital Makerspaces to Colorado libraries. Your participation in this brief survey will help us better serve the needs of our community.

Thank you in advance for your participation!

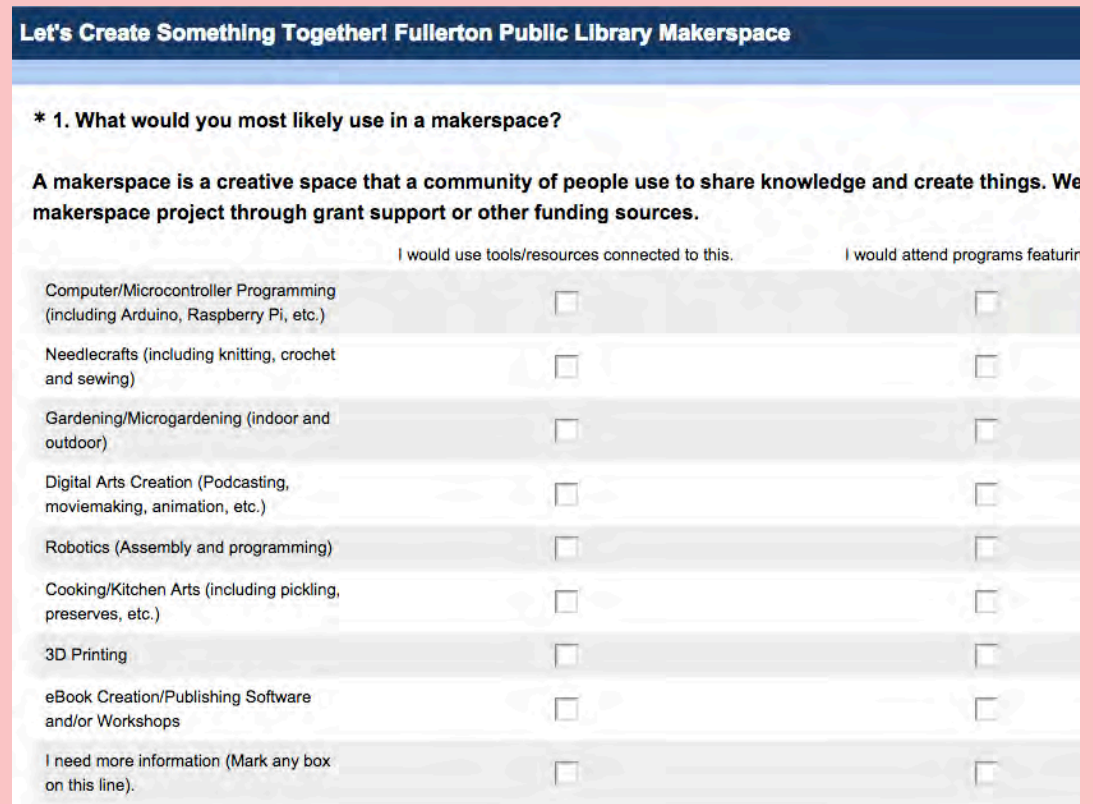
1. Would you be interested in a Makerspace in this library (an area where children and adults can explore hands-on building and creating)? Possible elements might include game design, 3-D printing electronics, programming, LEGO® robotics, and using software such as Adobe® Photoshop®.

☐ Yes ☐ No

2. What elements/activities/ideas would make a Makerspace most interesting to you or your children?

☐ Game Design ☐ LEGO® Robotics ☐ App Development
☐ Electronics ☐ 3-D Printing ☐ Audio & Video Creation
☐ Computer Programming ☐ Circuit Design ☐ Multimedia Software

Other:



Let's Create Something Together! Fullerton Public Library Makerspace

* 1. What would you most likely use in a makerspace?

A makerspace is a creative space that a community of people use to share knowledge and create things. We make our makerspace project through grant support or other funding sources.

	I would use tools/resources connected to this.	I would attend programs featuring
Computer/Microcontroller Programming (including Arduino, Raspberry Pi, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Needlecrafts (including knitting, crochet and sewing)	<input type="checkbox"/>	<input type="checkbox"/>
Gardening/Microgardening (indoor and outdoor)	<input type="checkbox"/>	<input type="checkbox"/>
Digital Arts Creation (Podcasting, moviemaking, animation, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Robotics (Assembly and programming)	<input type="checkbox"/>	<input type="checkbox"/>
Cooking/Kitchen Arts (including pickling, preserves, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
3D Printing	<input type="checkbox"/>	<input type="checkbox"/>
eBook Creation/Publishing Software and/or Workshops	<input type="checkbox"/>	<input type="checkbox"/>
I need more information (Mark any box on this line).	<input type="checkbox"/>	<input type="checkbox"/>

Louisville Public Library Makerspace Survey, 2014

- Craft a survey for your teen space and your teen staff in order to find what teens want and need
- Engage local schools to find where teenagers need the most support academically

Staffing a Learning Lab

Mentors are:

- role-models
- subject-matter experts
- instructors,
- Youth advocates



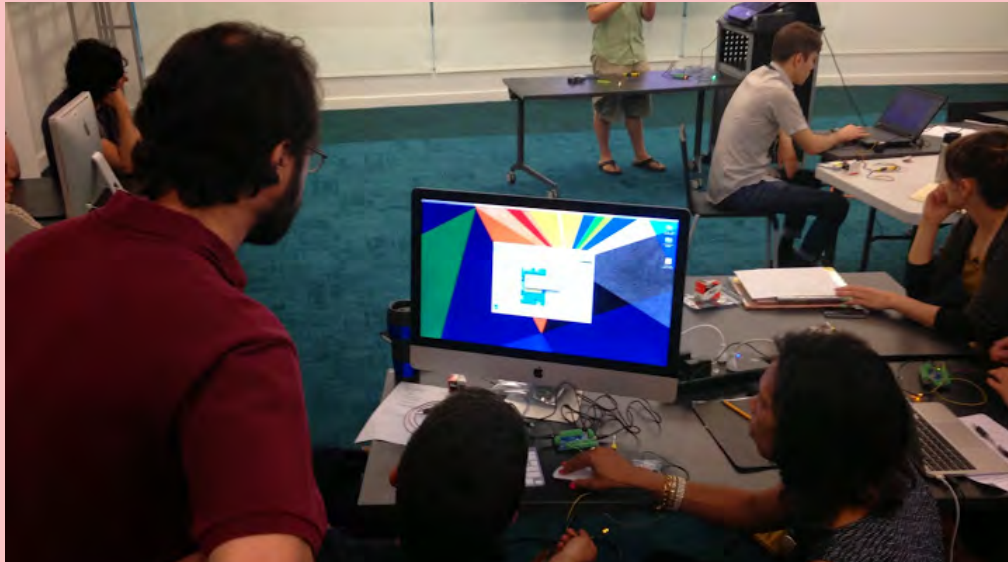
Lake Fong/Post-Gazette



As the YOUMedia effort continues to grow, the challenge will be to hold onto the crucial learning dynamics and culture of YOUMedia while also adapting to the unique needs of diverse institutions, youth and their communities.

Connected Learning Report, dmlhub.net

Strategies for alternate staffing models



- Training existing staff through one-on-one and group professional development
- Put out a call for volunteer makers
 - Community experts, etc.
- Advocate to trustees and other stakeholders for the importance of staff for learning labs
 - Ask them to "Support library staffing plans that acknowledge the role that all staff have in providing service for and with teens."

Guidelines for Professional Development



- Share the research behind learning labs with staff in a way that is impactful to them - show learning outcomes and
- Show staff that the expectation is for them to try new things - to become curious "co-learners" and not to experts
- Still, training is important. Even if you don't have as much time as you'd like, look for opportunities for PD
 - Roving one-on-one tech trainings with staff
 - Training that happens during established meetings (like a monthly teen staff meeting)
 - Promote CE credit trainings and other community opportunities for educators and those working with youth

Using Qualitative Evaluations

Evaluation is ongoing

- Action research through programming
- Post-program surveys for teens
- Interviews with youth as they progress through programming
- Was there a change in disposition? (how the user thinks or feels)
- Connect to outcomes (skills and knowledge gained through programming)



Using Data to create action plans

Involve staff and stakeholders in developing informal education practices so your work doesn't happen in a bubble.



Show your colleagues the need by sharing this data

- Use YALSA talking points
- Share stories from programming
- Promote youth work to the community to draw attention and demonstrate the purpose of learning lab programming

Questions



Thank you



coreymwittig@gmail.com



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