Designing Library Spaces
Hello!

I am Amy Vecchione

I am here because I love talking about design thinking in libraries.

You can find me at @librarythinking
What We Will Talk About Today

Makerspaces
Engagement
Design Thinking
Learn Startup
Designing your spaces
"I am always doing that which I cannot do in order that I may learn how to do it."
What’s your mission?
How do you define engagement?

What does user engagement mean to you and your library?
What is happening with space at your library?

- New spaces
- What is the status of makerspaces in your library
- What are your big ideas
Makerspaces are a prototype for extreme user engagement serving entrepreneurs.
Design Your Own Makerspace
Superusers
Superusers can be empowered to help drive the services through volunteering, designing the space, and attending meetings.

Non dominant groups
Look around your spaces and see who is and is not using your space. Think about your community and reach out to the non dominant groups and host outreach events.
Youth Design Team
Tasked with designing and planning the space
http://www.library.pima.gov/101-at-main/
Technologically Rich Spaces Have Strong Values and Visions

**Pima County Library**

**Access:** We are committed to accessibility on many levels—physical, economic, social, virtual, etc.

**Community:** The atmosphere of the space will cultivate a greater sense of community—among youth themselves and with peer and adult mentors.

**Learning:** Youth programming will be interest-driven, peer-supported and connected to real world opportunities.

**Safe and Welcome:** The space, people and policies will allow youth to feel welcome without being unsafe because of the identities they inhabit.

**Youth Voice:** Youth throughout our community will actively participate in decision-making and opinion-sharing.
The makerspace is a radically inclusive community with a clear pipeline to fabrication resources allowing students to design ideas, objects, and dreams.
North Carolina A & T State University

ANGELICA WILLIS: MAKERSPACES AND STUDENT INNOVATION

Angelica Willis is a Computer Science major from North Carolina A&T State University. This year she is completing an internship at Apple in Silicon Valley and is also developing a community makerspace at her school set to launch in the...

READ THE POST
Entrepreneurship is creating something that didn’t exist before and attaching value to it.
Starting a community makerspace at your school is a great idea. How did you go about raising money for this venture?

We really needed to raise some money so we started entering a number of different community contests for social entrepreneurship. At the last moment we found out about a HBCU Innovation Challenge. We applied and out of 23 teams we were accepted to the finalist round. We went to Detroit and presented a showcase of innovation to four different executives. Our showcase included interviews with prominent people in the STEM community. And at the event we heard from Charles Bolden, who is the director of NASA. We ended up winning the challenge and walked away with $15,000 and iPads. When we got back the people at our school were so impressed we were able to bring together everyone and move forward on the makerspace project, with the library donating the space. This was an important lesson to me to not let anything that was out of my control hinder our progress. There are multiple ways to get where you want to go.
Let's Let Them
Making in education is not about having the coolest, most expensive tools or the fanciest makerspace. Making is a way to empower people to solve their own problems and develop the skills and mindsets to do so.

At its core, the maker movement is about sharing ideas and access to solutions with the world, not for money or power, but to make the world a better place. It’s about trusting other people—often people you don’t know—to use these ideas for good.

Making in the classroom is also about power and trust, and perhaps in an even more important way, because it’s about transferring power to the learner—young people who are the ones who will take over the world in the not-too-distant future. And in giving learners agency and responsibility over their own learning, they gain trust—not just the trust of the adults in the room, but trust in themselves as powerful problem solvers and agents of change.

Making is not only a stance toward taking back that power, as individuals and communities, but also trusting ourselves and each other to share that power to create, learn, grow, and solve problems. Empowering youth is an act of showing trust by transferring power and agency to the learner. Helping young people learn how to handle the responsibility that goes along with this power is the sensible way to do it. Creating opportunities to develop student voice and agency takes skill and determination. Inspiring them with modern tools and knowledge needed to solve real problems is part of this job.
Meaningful Making: Projects and Inspirations for Fab Labs and Makerspaces

Chapter on Society & Inclusion
Georgia Tech Invention Studio

- Students lead the space
- Set the budget, manage, and train
- All volunteer run
- Enhance creative confidence
Georgia Tech Invention Studio
Inclusion & Depiction

- Design of spaces needs to be inclusive
- Microaggressions - tshirts for computer science not in women’s sizes
- When something is hard it’s “not for them”
- “Do people like me use spaces like this?”
- Showcase diverse role models
Makerspaces are a pilot for the rest of your library
Design thinking & Lean Startup

Identify user group

Identify their needs

Design space to meet needs
Design Thinking & Lean Startup Concepts

**Personas**
Create data driven personas that represent user groups or market segments.

**Journey Maps**
Map their pathway of how they experience the library. What are their needs? What does the library not provide?

**Rapid Experimentation**
Create some prototypes and change spaces to see how users respond. Embed librarian and staff to provide services in those spaces.

**Library Idea Canvas**
How can you scale or build capacity? Identify partners, define customer problems, determine costs, create the business proposition.

**Test**
Was the idea successful and are there super users who can help iterate the space with you?

Scenarios

A student is trying to find a book. She has a call number or a slip of paper and is looking at the map by the Reference Desk. A librarian sits at the desk.

Typical Scenario used in service design study.

Customer Journey Mapping

27

Reed College Library

Service Design by Joe Marquez and Annie Downey
Rapid Experimentation

**RAPID EXPERIMENTATION**

**TEST IT!**

**CUSTOMER/USER BEHAVIOR:**
What user behavior you want to measure?

**HYPOTHESIS:**
If we do X, Y% of people will do Z.

**EXPERIMENT:**
What experiment will test your hypothesis?

**CURRENCY:**
What is your participant exchanging?

**TARGET METRIC:**
What is your minimum success metric?

**LEARN & PIVOT**

**RESULTS:**
Did the experiment pass or fail?

**WHY:**
Why or why not?

**INSIGHT:**
What new insights did you discover?

**DECISION:**
What should you do next?
Library Idea Planning Canvas
Target Customers

Students
Faculty with design in their courses
Student entrepreneurs
How To Reach Them

They talk to each other
Dorms
Fliers in the bathrooms
Partners

Other College Units
Gaming major, College of Innovation and Design
Community
Business owners, retired community members, patent and trademark office, pro bono patent attorneys, hobbyists, other makerspaces, etc.
Buy In & Resonance

Students (users)
Deans & Directors

Is there a project cheerleader in admin? Who?
Who are the internal and external decision makers?
How does it resonate with the strategic direction of the library?
Ask someone to be the project mentor
Customer Problem

Students have ideas that they want to turn into a reality. They think these ideas could be a good business for them! They don’t have the tools or resources or mentors to make it happen.
The Mission of Librarians is to Improve Society Through Facilitating Knowledge Creation in Their Communities
Create a space for students to create prototypes that operates as a hub for design thinking
On March 28 and 29 the number of students who participated in MakerLab instruction sessions was 250.
Number of students, staff, and faculty who have attended a 3D printer training since March 2016
Number of volunteers in the space who train and offer services
Percentage of all disciplines using the MakerLab

- Business: 44.4%
- Arts and Sciences: 8.3%
- Education: 13.9%
- Health Sciences: 13.9%
- Engineering: 16.7%
- Public Service:
Levels of Engagement

- Introductory level: Display interest
- Level 2: Show curiosity and capacity
- Level 3: Expresses desire to begin a project
- Level 4: Identify as a maker with value to add to the community
- Level 5: Lead in the space
- Level 6: Take on responsibilities
Best Practices - Suggestions

- Create happy collisions
- Address job skill gap
- Troubleshooting is a life skill
- Ask meaningful questions
- Help set up opportunities
- Establish mentoring
resources

Thanks!

ANY QUESTIONS?

amyvecchione@boisestate.edu
@librarythinking
*Injustice anywhere is a threat to justice everywhere.*

-Dr. King
Poor quality, but the centriphone works!