



# The Innovation Lab

Saint Paul Public Library  
LibTech • March 15, 2017

Xenia

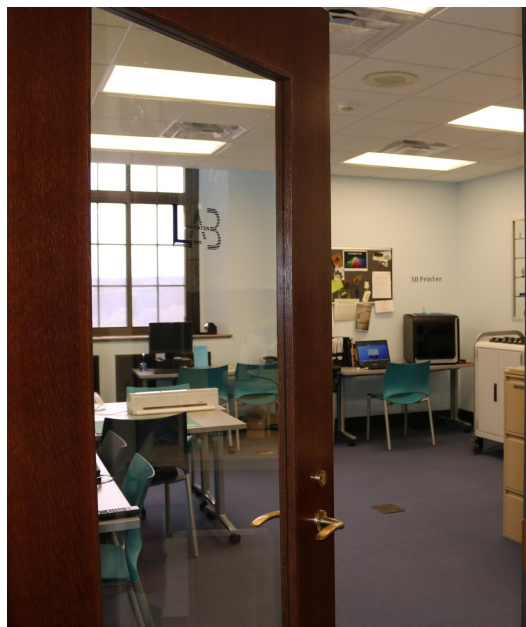
Amanda

Andrea



The Tech Crew





We are an adult makerspace in Downtown Saint Paul funded by the Friends of the Saint Paul Public Library.



# Membership

To become a member you must: attend orientation, sign a member agreement, & get started with a reservation!  
(Walk-ins welcome)

## orientation days

2nd & 4th Mondays, 5:30-6:30 PM  
2nd Saturdays, 11 AM-12:30 PM  
Attend orientation to become a member and gain access to equipment, software & classes.

## membership

- Must be at least 18 years old.
- Have an active Saint Paul Public Library card with less than \$10 in outstanding fees.
- Attend an orientation to see demos, learn about safety, reserving equipment or schedule one-on-one training.

## equipment

- Skype-enabled laptops
- Canon EOS 70D DSLR camera
- Afonia H800 3D Printer
- Studio Headphones
- Avid ProTools 12.3
- Adobe Creative Cloud
- ULS Laser Engraver/Cutter
- Roxio Easy LP/Cassette to MP3 software
- VHS to DVD Converter
- Sewing machines



## Innovation Lab Member Agreement

Nicholson Workforce and Innovation Center

By signing our member agreement, you agree to abide by the expectations on the previous page. Items in red are required.

### Personal Information

\*Full name: \_\_\_\_\_  
Last First MI  
\*Address: \_\_\_\_\_  
Street City/State  
Zip Code County  
Phone (optional): \_\_\_\_\_ \*Date of birth: \_\_\_\_\_  
\*Library barcode number: \_\_\_\_\_  
E-mail: \_\_\_\_\_

Race/Ethnicity (circle all that apply):

(American Indian/Alaska Native) (Native Hawaiian or Pacific Islander)  
(White or Caucasian) (Hispanic or Latino)  
(Black/African American- Please specify) \_\_\_\_\_  
(Asian- Please specify) \_\_\_\_\_ (Other) \_\_\_\_\_

Gender identity: Male Female Transgender Other  
Occupation: \_\_\_\_\_

Person to contact in case of emergency: \_\_\_\_\_

Relationship to you: \_\_\_\_\_ Phone: \_\_\_\_\_

Are you interested in joining our Lab advisory board? Yes No

Do you give permission to Saint Paul Public Library to use your picture in articles, publications and other materials which highlight or explain the services offered by the Library? Yes No

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
By signing this contract you are agreeing to abide by all Innovation Lab rules, posted signs and library policies.

Approved Orientation? 2/28/16 Date: 2/28/16

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January 2017

WIN Center Equipment/Appointments						
May	Jun	Jul	Aug	Sep	Oct	Nov
March 2017						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
1 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	2 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	3 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	4 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	5 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	6 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	
7 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	8 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	9 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	10 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	11 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	12 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	
13 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	14 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	15 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	16 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	17 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	18 10:00 AM - 12:00 PM Curt K. - Laser (no assist)	



293 MEMBERS

82 PROGRAMS

42 APPOINTMENTS PER  
MONTH

Equipment & Software



# Workstations

## Digitization



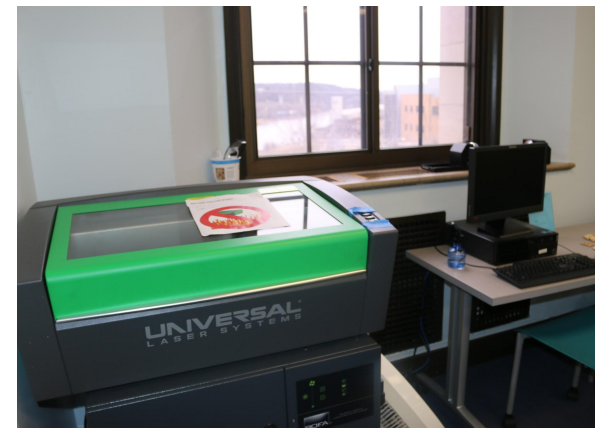
DVD/VCR recorder combo  
Video Capture adapter  
Roxio Easy VHS to DVD and  
Cassette/LP to MP3 software  
USB turntable  
Blank CDs & DVDs for sale

## Cutting



Silhouette Cameo 3 cutter  
Cutting mat  
Sketch pens  
Vinyl, cardstock, transfer sheets

## Laser



Universal VLS 3.50 50W laser  
Fume exhaust filtration system  
Engraving table  
Cutting table  
Rotary fixture  
Supplies for sale

# Workstations

## 3D Printing



Afinia H800 3D printer  
ABS & PLA filament, various colors  
1 Copper-infused PLA roll  
Various tools

## Tech Suite



16 Skype-enabled Thinkpads  
1 Macbook  
9 Adobe Creative Cloud licenses  
20 Sony headphones  
1 Canon EOS 70D DSLR camera

## Sewing



1 Brother PC420 PRW  
computerized sewing machine  
4 Singer machines  
Patterns, fabric and notions  
Jewelry supplies



# Workstations

## Yarn Crafts



Crochet hooks  
Knitting needles  
Yarn various types & colors  
Patterns

## Recording Studio



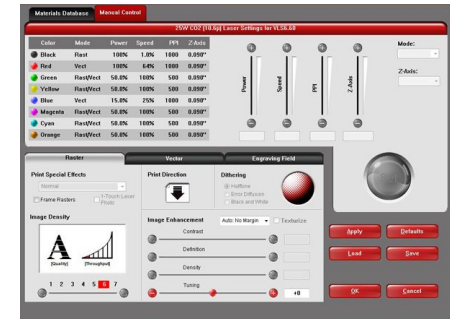
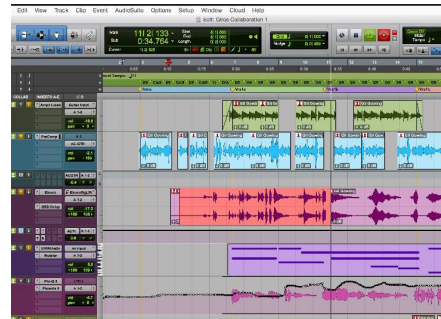
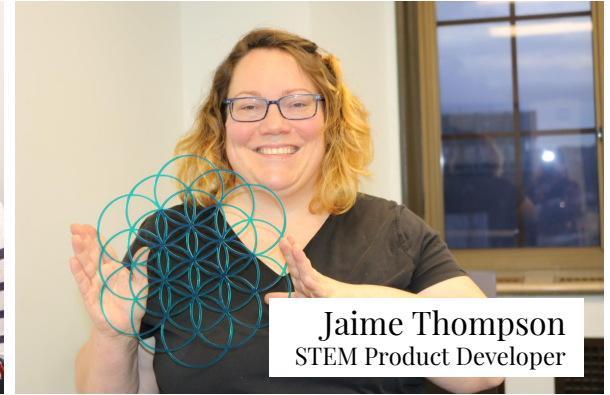
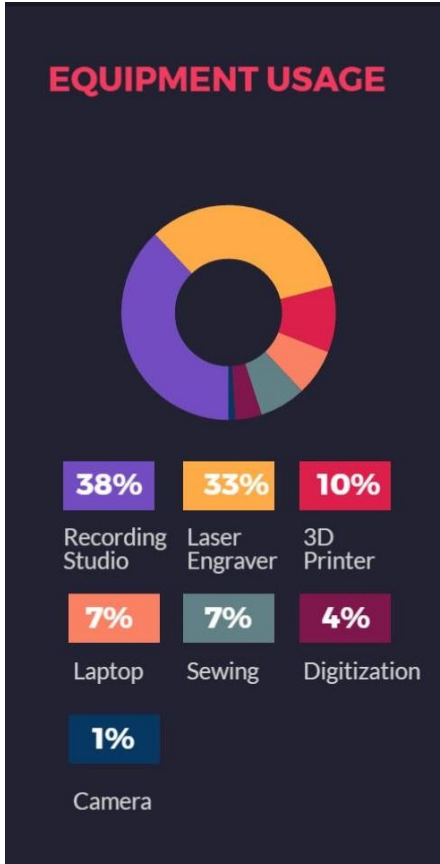
Editing suite w/isolation booth  
iMac w/Garageband & ProTools 12  
Yeti & AKG microphones  
Studio headphones  
Focusrite Scarlett audio interface  
MDI keyboard  
Moog Synthesizer

## Classroom



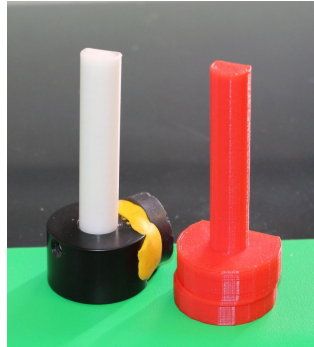
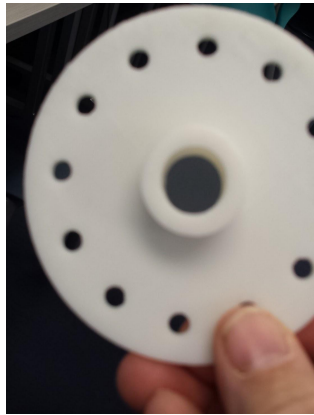
Space for orientations,  
workshops, online learning,  
trainings & events  
2 private study rooms

# What are members using?





# 3D Printing



3D printed projects. *From left to right:* Plain, white ABS hedgehogs, with acrylic painted smaller model; White ABS magnetic rotating disk for a camera; Black and white ABS chess pieces with laser cut and painted jigsaw chessboard; Laser focus tool and red ABS copy; Red ABS dinosaur painted silver; Custom-designed, green PLA blaster prop for Star Wars-themed costume.



# Laser Engraving



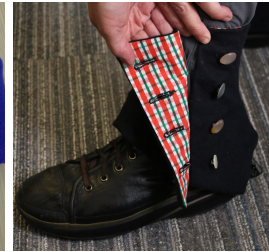
REFUGEES WELCOME



Laser engraved and cut projects. *From left to right:* Signage on reclaimed wood; Basswood lampshade; Personalized wine glasses; Photograph on pumpkin; Painted wood and acrylic mobile; Engraved coasters on cork; Black, acrylic hydroponic lettuce-growing adapter.



# Sewing



Machine and hand-sewn projects. *From left to right:* Hand-sewn stuffed horse with felt and yarn; Canvas tote bag with lace and attachment; Tops and skirts from vintage patterns; Machine-sewn baby swaddle wrap; Blue, felt neck warmer; Black, lined spats; Hand-sewn ornaments.

# Crafts

Yarn, Paper &  
more



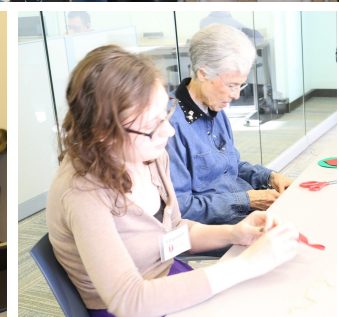
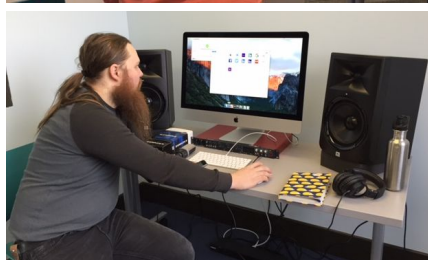
Crafts, various materials. *From left to right:* Shadow box made from cardstock cut on Silhouette cutter, framed, and illuminated with LED bulb; Crocheted and stuffed sea forms; Hand-made paper lanterns; Mask made from textured fabrics and paper; Mini top hat decorated with laser-cut felt cameo and other supplies;; Laser-cut card-stock and fabric ornaments;.





# Classes & Programs

Open to all



Maker activities *From left to right:* Crochet social; Eco-friendly card making; Mask and costume making; Machine sewing class; 3D Printing class; Paper lantern making; Hand sewing ornaments; ProTools class.



# Top Programs

May 2016-Feb 2017

## PROGRAM ATTENDANCE

May 2016 - February 2017



## PROGRAM POPULARITY

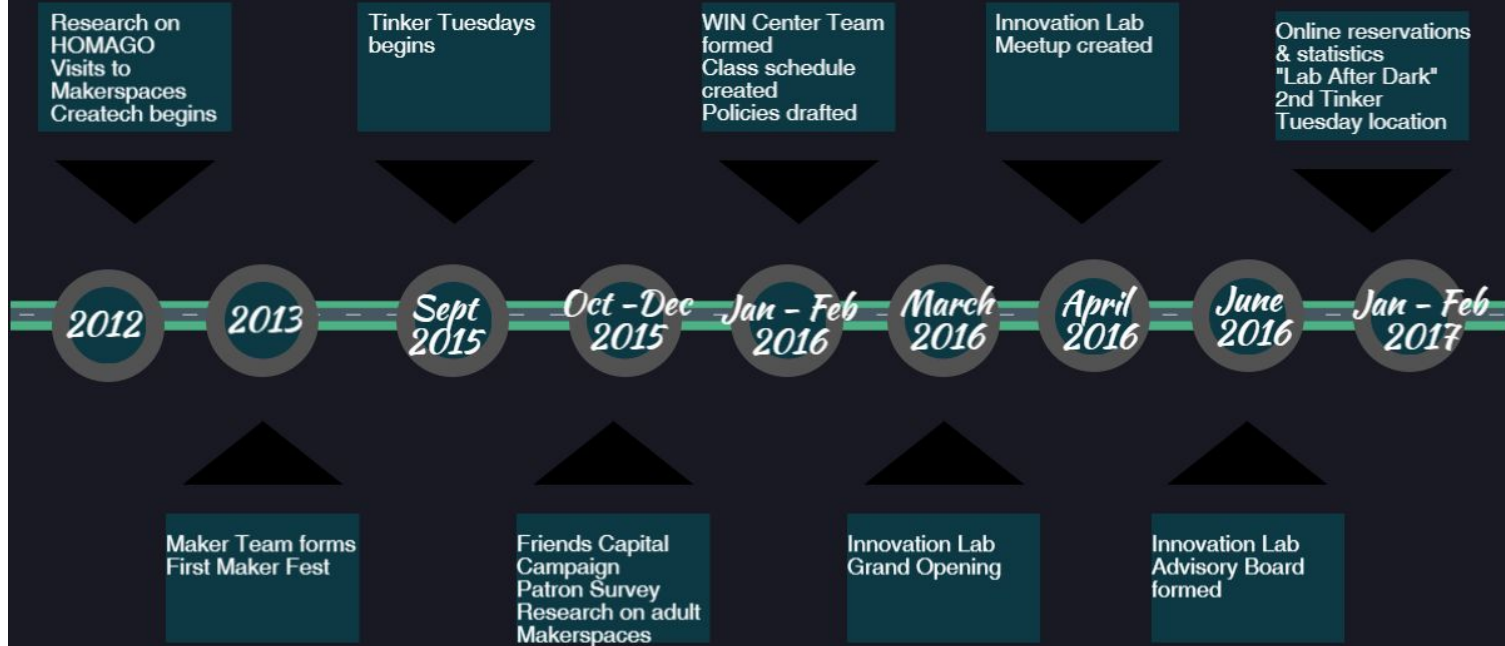
May 2016 - February 2017

Average class attendance,  
May 2016- Feb 2017



How did we get  
started?

# Timeline of Maker Activities at SPPL



Where we started



# Createch vs Lab

Homago

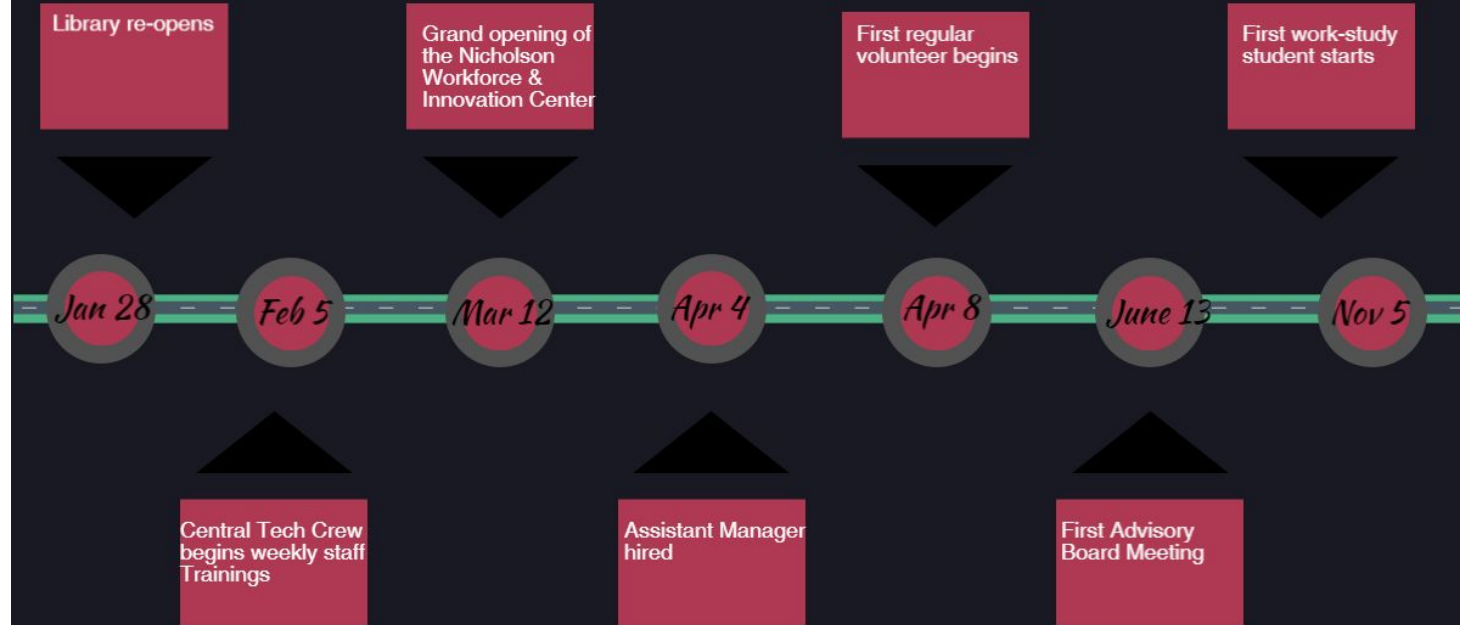


Structured Learning



**Be specific!**

# Staffing Timeline 2016



How we've grown

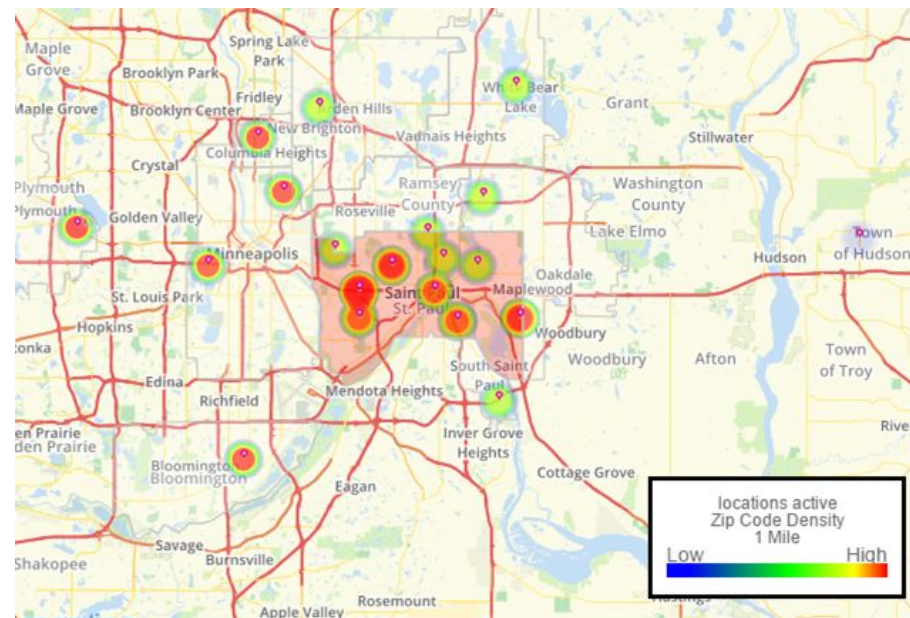
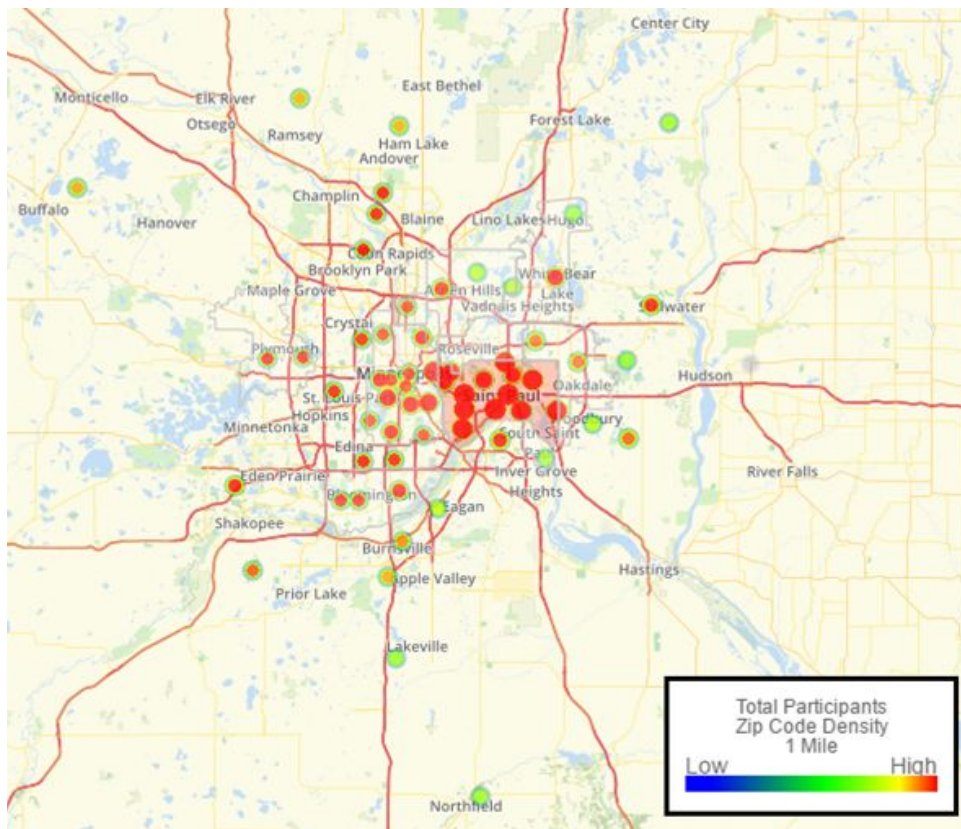
# The Team





Who are we serving?

## All members vs Active members (by zipcode)

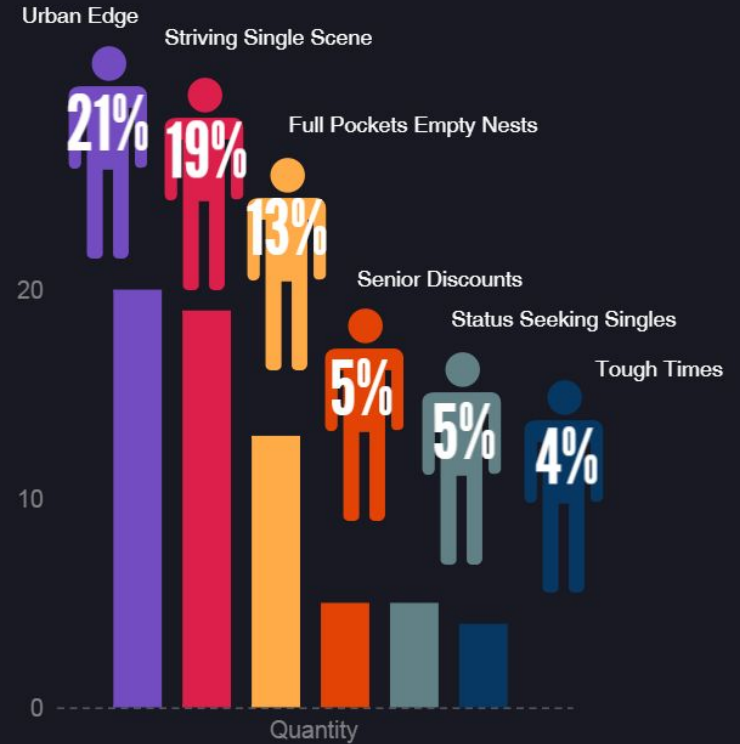


# Market Research

## Patron Profiles

### TOP MOSAIC PROFILES

George Latimer Central Library



# Population & Membership by Race

## POPULATION BY RACE/ETHNICITY

Saint Paul as a whole, 2015



58%

White

16%

Black

17%

Asian

10%

Hispanic

1%

American  
Indian

4%

Other

5%

Multiracial

## POPULATION BY RACE/ETHNICITY

George Latimer Central Library, 2015



78%

White

13%

Black

4%

Asian

5%

Hispanic

1%

American  
Indian

1%

Other

3%

Multiracial

## INNOVATION LAB MEMBERS BY RACE/ETHNICITY

Total Members



71%

White

10%

Black

7.5%

Asian

2%

Hispanic

.5%

American  
Indian

1%

Other

6%

Unknown

3%

Multiracial

## INNOVATION LAB MEMBERS BY RACE/ETHNICITY

Active Members Jan - Feb 2017



61%

White

16.5%

Black

7%

Asian

1.5%

Hispanic

1.5%

American  
Indian

1.5%

Other

8%

Unknown

3%

Multiracial



# Membership by Gender & Age

## INNOVATION LAB MEMBERS BY GENDER

Active Members Jan - Feb 2017



**57 %**

Male

**38%**

Female

**5 %**

Unknown

## INNOVATION LAB MEMBERS BY AGE

Active Members Jan - Feb 2017



**38%**

18-30

**34%**

31-43

**16%**

45-56

**7%**

57-69

**5%**

70-82

Average Age = 45

Who uses the  
Innovation Lab?



“Investigated & proven  
packaging solutions”



Rachel Kane  
[SureLockPack.com](http://SureLockPack.com)

Rachel uses the 3D printer to test designs for a startup packaging company. 3D printing at cost saves her hundreds of dollars per prototype.



Grailon Wheeler-White  
[Soundcloud.com/CoolGrai](https://soundcloud.com/CoolGrai)

Grai uses the recording studio to produce music in the battle rap genre. He has been a positive model for other aspiring members.



Cool Music

Grailon White

Minneapolis, United States

All Tracks Albums Playlists Reposts

Station Follow Share



Cool Music  
Only Real Cool One

10 days  
#Hip-hop & Rap



1 Repost Share More

80

Followers  
63

Following  
2

Tracks  
47

All Original Hip-Hop Artist. Freestyle, Song Writing, Performing & Recording Artist. Still waiting to hear back from rapper "Fabolous" after challenging him to "The Battle Of Originality" NOT A PEEP lbr



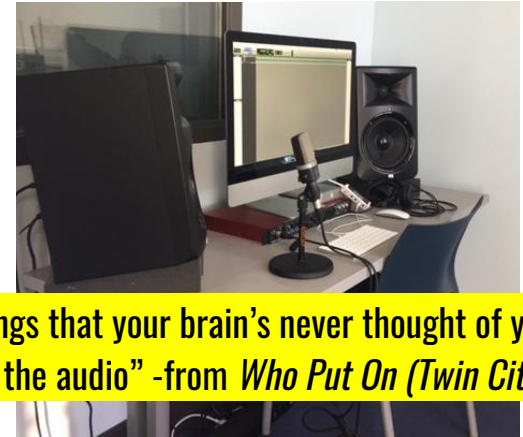
Cool Grai  
Who Put On (Twin Cities)

5 months  
#Hip-hop & Rap



5 Repost Share More

194

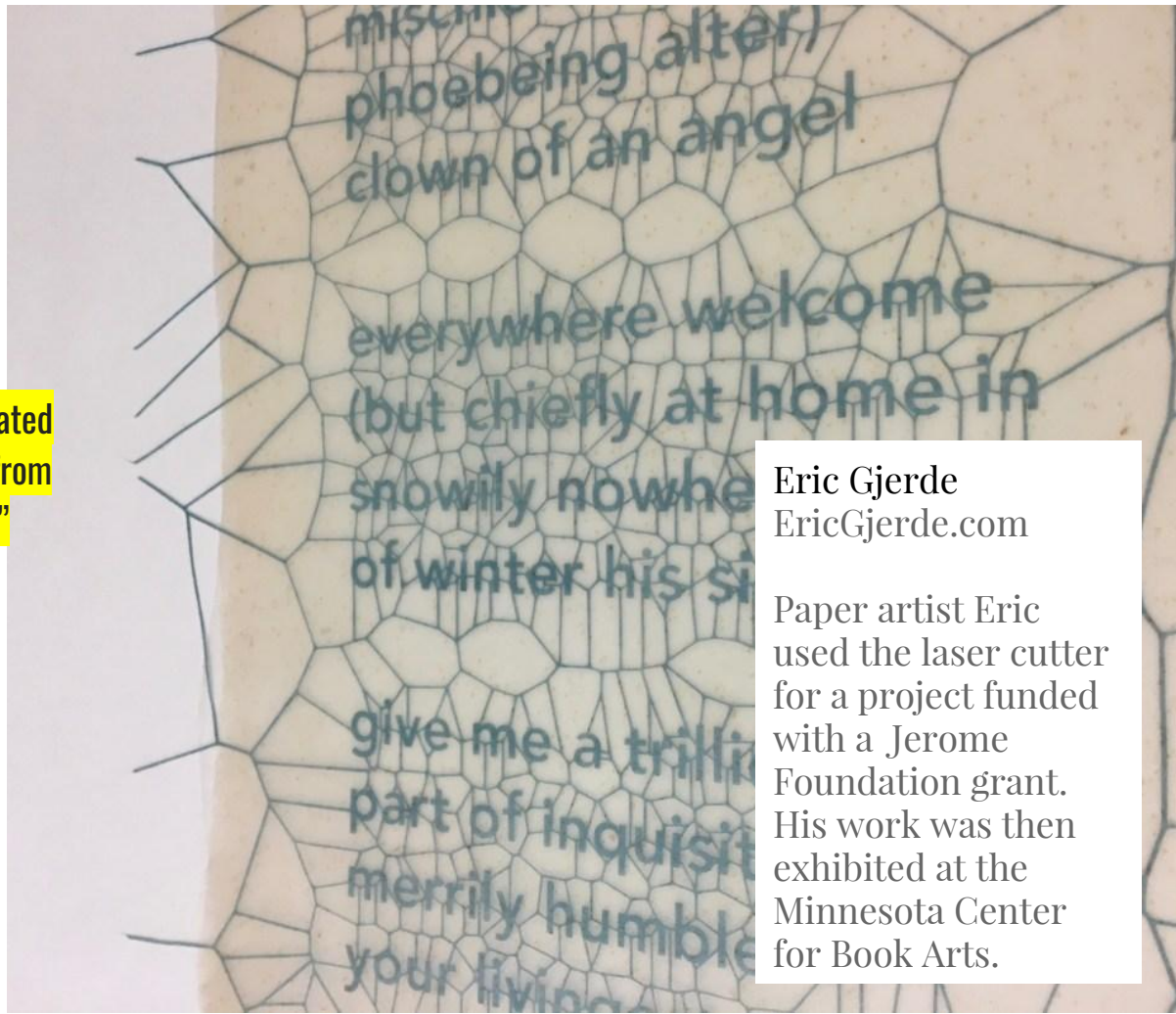


"I do things that your brain's never thought of yo... same on the audio" -from *Who Put On (Twin Cities)*





*"Specimens is the first of its kind: a book created with a new bio-paper medium made entirely from bacterial cellulose. Its pages were once alive."*



Eric Gjerde  
[EricGjerde.com](http://EricGjerde.com)

Paper artist Eric used the laser cutter for a project funded with a Jerome Foundation grant. His work was then exhibited at the Minnesota Center for Book Arts.

How we connect



Advisory Board

We encourage members to take ownership of the space and invite all to participate in the Lab Advisory Board.

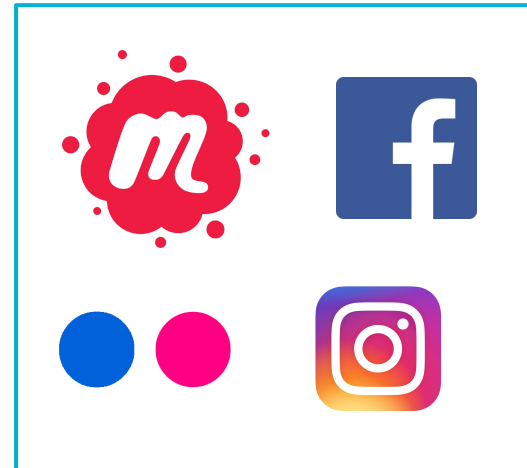


# Social Media

#madeitatSPPL



We connect with members on Meetup, Facebook, Flickr & Instagram.





We solicit and share ideas through a member email list & feature members in a bi-monthly newsletter.

# MEET YOUR MEMBERS

JAMIE THOMPSON

**Describe yourself in 1 Sentence or Less**  
Former engineer, current high school physics teacher, part-time STEM product developer.

**What projects are you working on or have you recently completed?**  
Using the laser cutter, I prototyped a kit to teach kids about the power wind and how renewable energy fits.

**What has the Innova?**  
Product development allowed the renewable affordable prototypes needed. Once I was at projects for fun: earn machine to repair Sam.

**What is your advice**  
Sign up for a time slot that you find interesting, not a pattern. Once you know you can create.

**Fellow Make**  
**Dakota County**  
On December 7, staff took all the projects to the County. We learned:

- Lab has a host of projects to make in one place and it takes time.
- Lab staff shares for coloring to alcohol-based ink.
- Lab staff creates unique 1:1 laser cut and ink recorder your 3D design in.

**Calendar**

**Yarn Crafts Social Circle**  
Tuesday, Dec 6, 13, 20 - 4 PM

**Adobe Photoshop 101**  
Monday, Dec 12 - 5:30-7:30 PM

**Machine Sewing: Sew Warm!**  
Sunday, Dec 18 - 1-4 PM

**Adobe Photoshop 102: Retouching & Image Correction**  
Monday, Dec 19 - 5:30-7:30 PM

**Getting started with TinkerCad**  
Saturday, Jan 7 - 1-3 PM

**Advisory Board Meeting**  
Monday, Jan 9 - 5:30-6:30 PM

**Social Media Overview & Strategy**  
Tuesday, Jan 10 - 10-11:30 AM

**Hand Sewing: Biting it out**  
Saturday, Jan 14 - 1-3 PM

**The Power of Email**  
Tuesday, Jan 24 - 1-3 PM

**Machine Sewing: Basics**  
Saturday, Jan 28 - 1-3 PM

To register, call 651-266-7000 ext 5 or visit [www.sppl.org/events-and-courses](http://www.sppl.org/events-and-courses).

**INNOVATION LAB NEWSLETTER**  
DECEMBER 2016/JANUARY 2017

**BUG OUR NEW STAFF**

Aamino Hirnig, a Century College student, will be assisting in the Lab on Saturdays. She has video production experience and will also be working off site at Createch, our teen maker space.

Khan Myo, an engineering student, will be in the Lab on Sundays, Mondays, and Fridays. He too has video production experience and can assist with the laser engraver, 3D printer, and vinyl cutter.

**WINTER IS... SEW SEW GOOD**

This winter season we will be making, wearing, and donating warm items. Join our Yarn Crafts Social Circle, Tuesdays from 2-4 PM or make pajama pants, slippers or ear warmers on Sunday, Dec. 18 from 1-4 PM. Take your creation home or donate it to our weekly Community Resource Outreach Project (CROP).

# MEET YOUR MEMBERS

## ROSE OYAMOT

**Describe Yourself in 1 Sentence or Less**  
 Folk-rocker-guitar-playing-jazz singer turned ukulele-strumming-egg-shaking-Happy-and-You-Know-It-Children's Storyteller.

**What projects are you working on or have you recently completed?** I have worked on recording videos *beginners ukulele videos*, tutorials for anyone from librarians and providers and parent one-stop site for ukulele songs. In the Lab, I've

**What has the Innova?**  
 The Innovation Lab is convenient for me to go, especially since two little ones keep

**What is your advice**  
 When recording in the actual recording process, take 7%, so have your tech, so your easier. Th

### SHADOW BOX



Staff and lab members "My Neighbor Totoro" cutter, a multi-color L (http://thebykard.com) sketch on paper, vinyl transfers, and even tie tricks on making your





# INNOVATION LAB NEWSLETTER

FEBRUARY/MARCH 2017

## Lab After Dark <=> Loud at the Library

We are partnering with Loud at the Library - a concert series of the Friends of the Saint Paul Public Library - to bring you Lab After Dark! This is an after-hours hangout at the Innovation Lab, 5:30-7:30 PM the last Friday of the month (through March). There will be yarn crafts, paper crafts, show & tell, and musicians are invited to jam - we don't have to worry about being quiet.

Immediately following Lab After Dark, join us for the concert on the 2nd floor. Music starts at 7:30. Bring a concert band and ID to receive a free beer, courtesy of sponsor Summit Brewing.





### Calendar

**Advisory Board Meeting**  
 Monday, Feb 6: 5:30-6:30 PM

**Hand Sewing: Dan**  
 Saturday, Feb 11: 1-3 PM

**Make Chinese Festival Lanterns**  
 Saturday, Feb 12: 2-4 PM

**Lab After Dark**  
 Feb 24, Mar 31: 5:30-7 PM

**Machine Sewing: Beyond Basics**  
 Saturday, Feb 25: 1-3 PM

**Videos 1 & 2: The Basics**  
 Tuesday, Mar 7: 10-11:30 AM

**Register at** [joulenn.eventbrite.com](http://joulenn.eventbrite.com)

**Urban Sewing with Ken Avidor**  
 Sunday, Mar 12: 3:30-5:30 PM

**Machine Sewing Basics with Kathleen**  
 Monday, Mar 20: 5:30-7:30 PM

**Coloring and Independent Sketching with Andrea**  
 Tuesday, Mar 21: 2:30-4:30 PM

To register, call 651-266-7000.

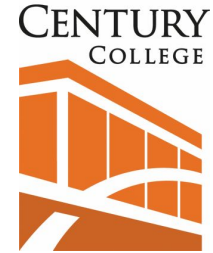
### THE BOKED EFFECT



Lab volunteer Richa Gosh, learned about the Boked effect from the National Camera Exchange. Boked is a focus technique that uses special filters to shape dots of light. Richa used the laser engraver to cut out a heart shape in the center of a paper lens cover and set the camera to its lowest exposure value to get the shot above (see tutorial [here](http://bit.ly/1K1f1AB) <http://bit.ly/1K1f1AB>). See more examples, including stars and trees, on display on the 1st floor.



# Partnerships & Collaboration



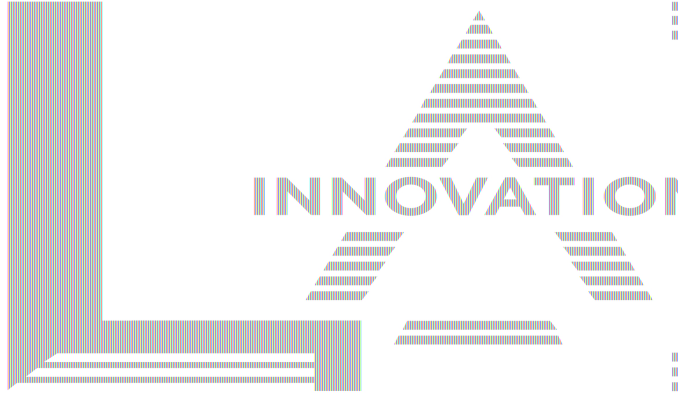
CATHOLIC CHARITIES  
*of St. Paul and Minneapolis*





- Putting together a dedicated team
- Orientations/Fast-track/1-on-1
- Building relationships with members. We know who they are, their interests & work
- Wishlist and in-kind donations from members
- Open to re-evaluating and re-tooling

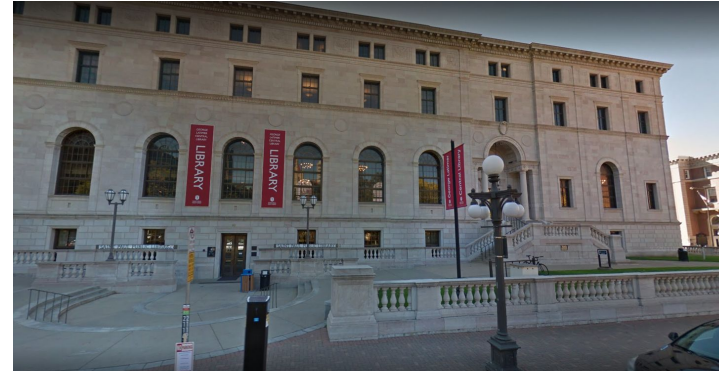
- Still working on connecting employers to skilled members
- Second 3D printer
- Extend to other branches
- Circulating maker kits
- Online orientation with quiz



Amanda.Feist@ci.stpaul.mn.us

Andrea.Herman@ci.stpaul.mn.us

Xenia.Hernandez@ci.stpaul.mn.us



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