

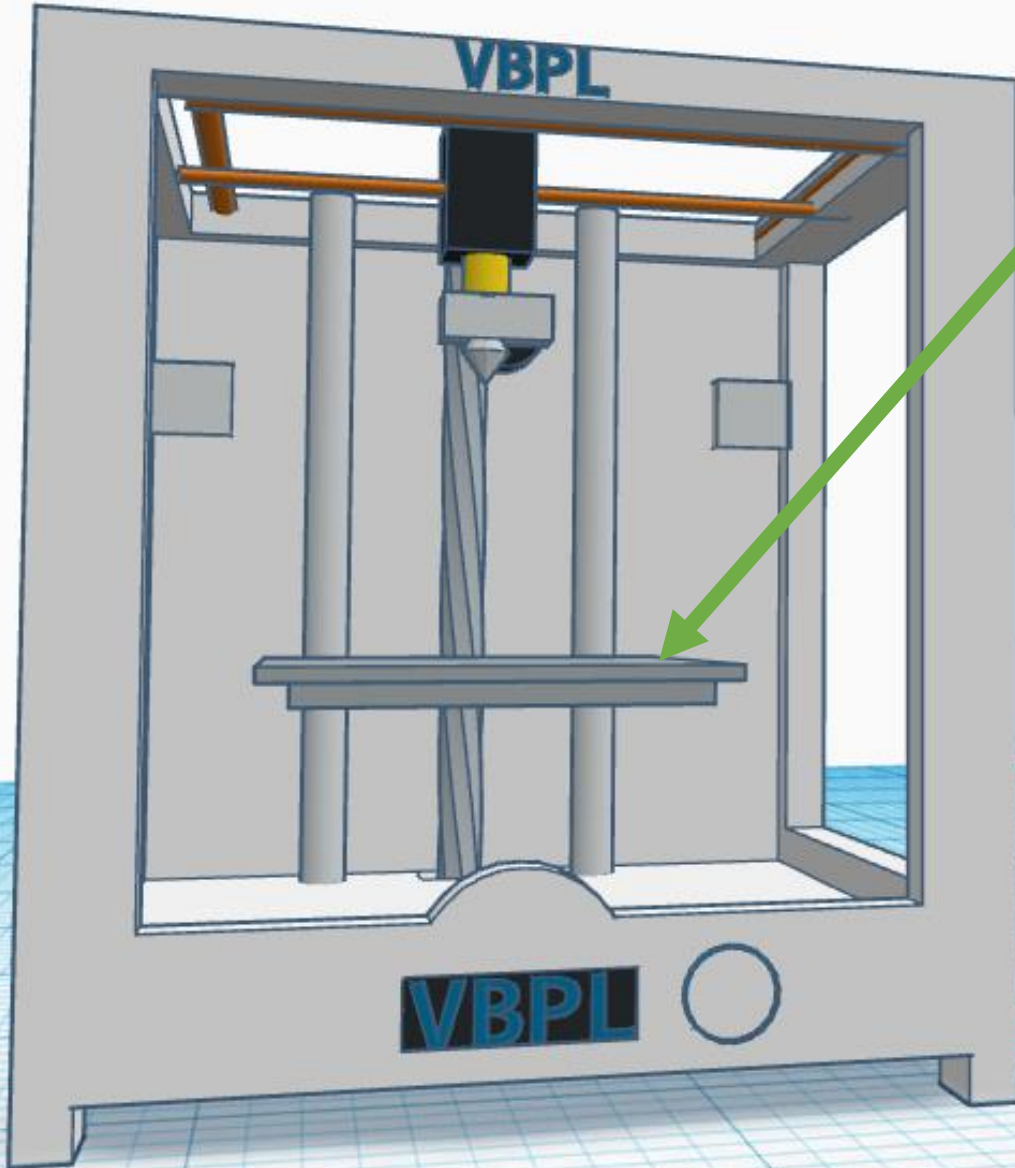


# Building a Public 3-D Printing Service One Layer at a Time

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Layer 1:

Research

Weighing Our  
Options

But first, a question for you...

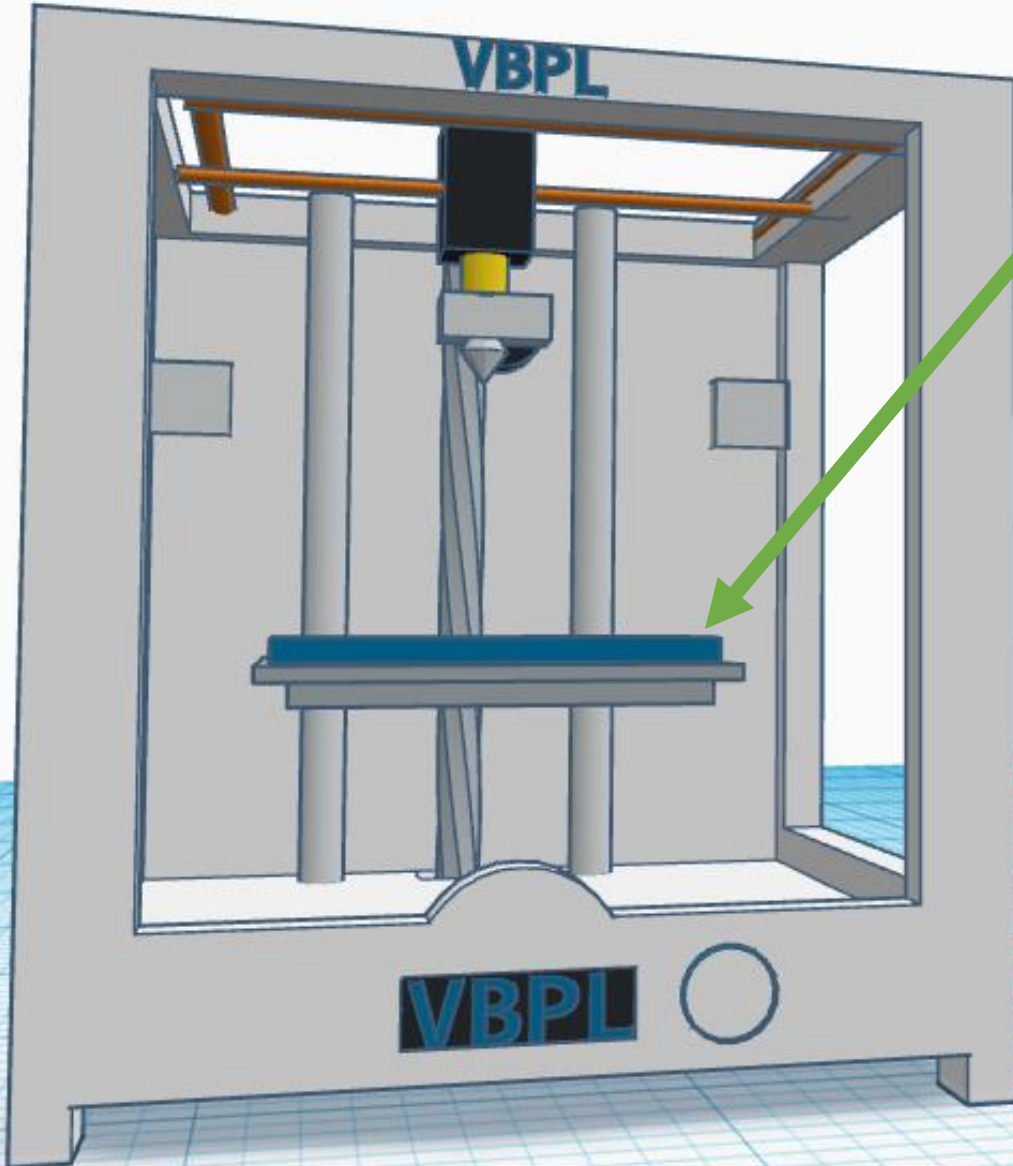


# In the beginning...

- Why?
  - Maker movement – extension of what we do already
  - Trends in makerspaces in libraries
- What?
  - Equipment types – pros and cons
- How?
  - End-of-year funds
  - Comparing policies and procedures
  - Logistics – staff and space requirements
- When?
  - Soft roll out June 2016
  - Second location soft launch February 2017

# Layer 2:

Implementation



Providing Access  
to the Public

# Year 1: Staff Training

- Began with staff training “roadshow”
- Transitioned to in-house demos for the public
- Demonstrated at outreaches (Bayside Block Party, Tidewater Comic Con)
- Bookmarks and standing signs accompanied printer





# Year 2: Public Programming

- Piloted first class for public—3D printing @ Central Library
  - Trained program providers to use equipment
  - Designed objects were printed for attendees by staff
  - First glimpse of printing process and troubleshooting
- Repeated classes at other locations



# Year 3: Public Service Developed

## Questions

1. Do we charge?
2. How do we develop the policies and procedures?
3. Which staff members are responsible?
4. How do we train staff?
5. How do we train the public?

## Answers

1. **No.** Cost of staff time outweighs cost of materials
2. Research other libraries, existing print policies
3. Desk/Front line staff
4. Demos, outline, “train the trainer”
5. By appointment—initial hands on training, minimal staff mediation after.



# Year 3: Public Service Rollout

- Soft launched in July 2016 at the Central Library
- All initial training requested/conducted through Technology Training Coordinator
- Staff training began first with volunteers
- Extended to all branch staff, “Train the Trainer” method, group staff trainings
- Joint Use Library volunteered to take 2<sup>nd</sup> printer, began in February/March 2017


# Year 3: Marketing the Public Service

- Soft launch:
  - Book marks and brochures
  - Outreach demos
  - Word of mouth
- Firm launch:
  - Newspaper article in The Virginian Pilot
  - Ads on website and social media sites

LOCAL NEWS

## Want to try out using a 3D printer? You can at the libraries in Virginia Beach

By Robyn Sidersky  
The Virginian Pilot  
Jul 15, 2016



3D Print Guide - 31  
Get the Latest Printers Now  
Printer Is Wa  
3dprinters,3dprint

LATEST VIDEO  
Bleedy rain coats

INTERESTED?  
You can learn more about 3D printing at the library by visiting <https://www.vbgov.com/government/departments/libraries/adults/methods/pages/3d-printing.aspx>.  
You can also take a class on 3D printing at the Kempville branch.  
Designing for 3D Printers using Tinkercad class for adults will be offered at Kempville Library from 5 to 7 p.m. July 19. Registration is required and can be

If you've been curious about 3D printers, there's a way for you to play with them, without having to spend thousands of dollars to buy one.  
Virginia Beach's public library system now has two, and they're available for public use.  
One is at the Meyers E. Oberndorf Central Library, and all patrons have to do to be able to use it is attend a one-hour orientation session. It hasn't been decided where the second one will go, yet.  
3D printers are used to print three-dimensional objects from a digital file. The files are made using a computer-assisted-design program in which the user can design their own object. If you don't want to design your own, you can pick a file for something pre-designed.

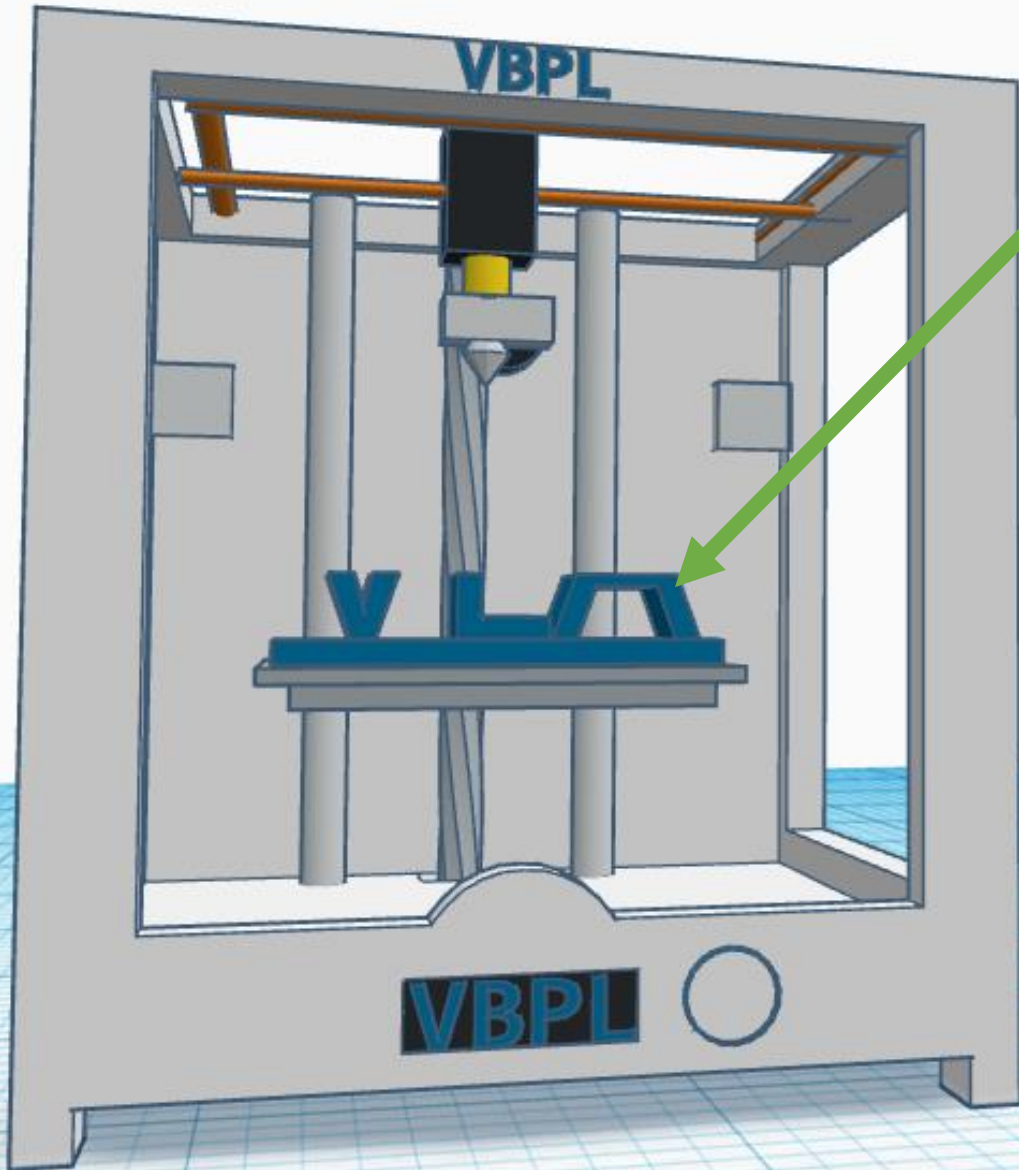
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# Year 3: Public Service Timeline

- July-December 2016
  - Central Library only
  - Technology Training Coordinator did orientations
  - Customers contacted Coordinator to schedule orientation
  - Staff training for orientations began before service was turned over branches and branch staff
- January 2017-Present
  - TCC/City Joint-Use Library began in March
  - Desk staff trained/responsible for orientations
  - Customers contacted branch for orientations and print reservations



Layer 3:

Lessons  
Learned

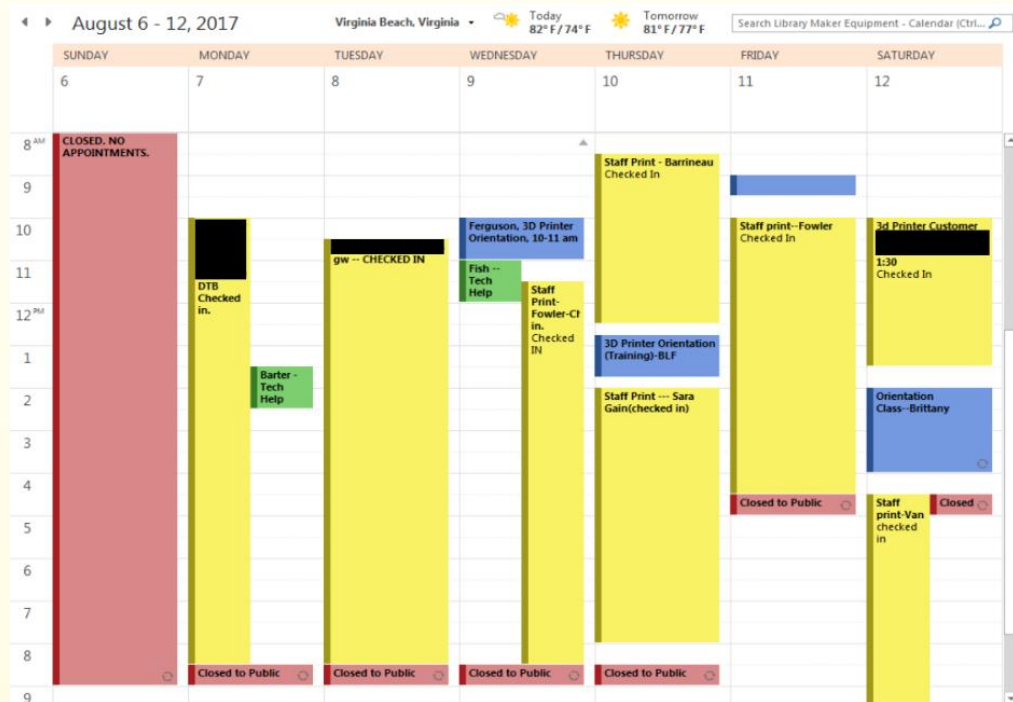
Fine Tuning Our  
Process

# What Did We Learn?

- Having a plan ahead of time is vital
- Staff training takes time
- Hands-on approach is key for customers and staff
- Things break—warranties, replacement/spare parts, filament jams, etc.
- Warranties (and extended warranties) are crucial
- Processes and procedures evolve over time
- Staff started seeing uses for the 3-D printers to support programming
- Both locations embraced it and worked out their own internal process while still striving for consistency

# Current Process: M.E.O. Central Library

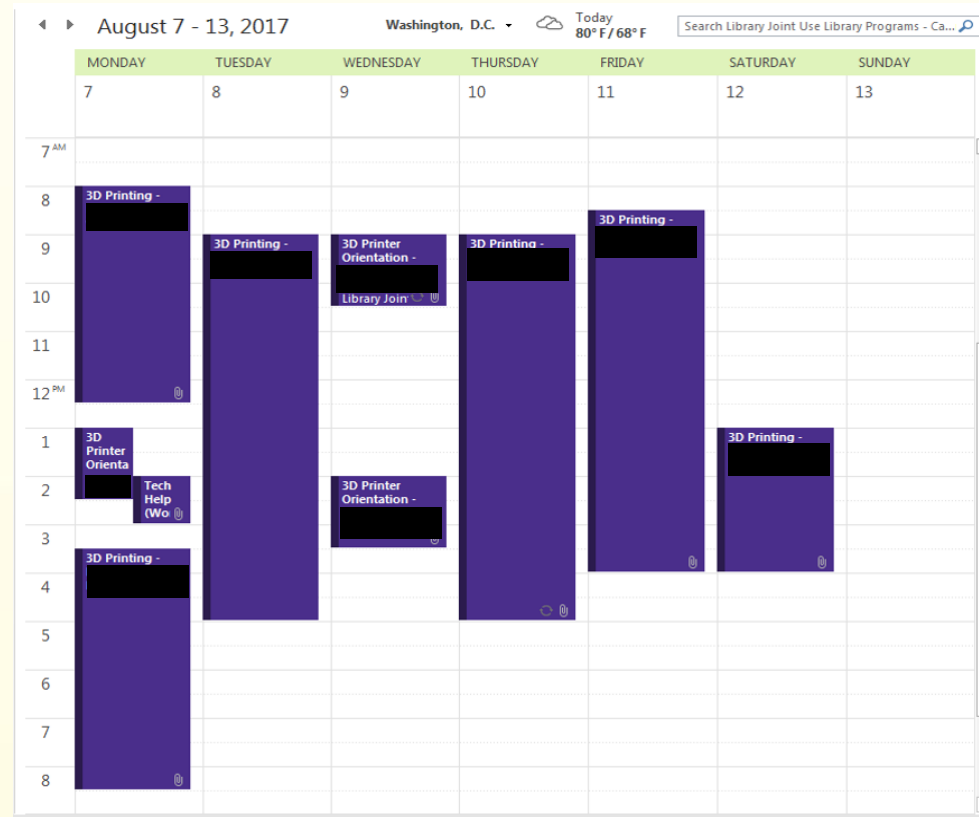
- Orientations
  - 2 orientations per day
  - Customer puts in request, contacted within 7 days
  - Two staff members coordinating service
  - Staff rotation, all desk staff responsible
  - One-on-one and 4 person Orientation classes
- Print Reservations
  - Desk staff sign on customer, leave them to print
- All orientation and reservations booked on shared Outlook calendar





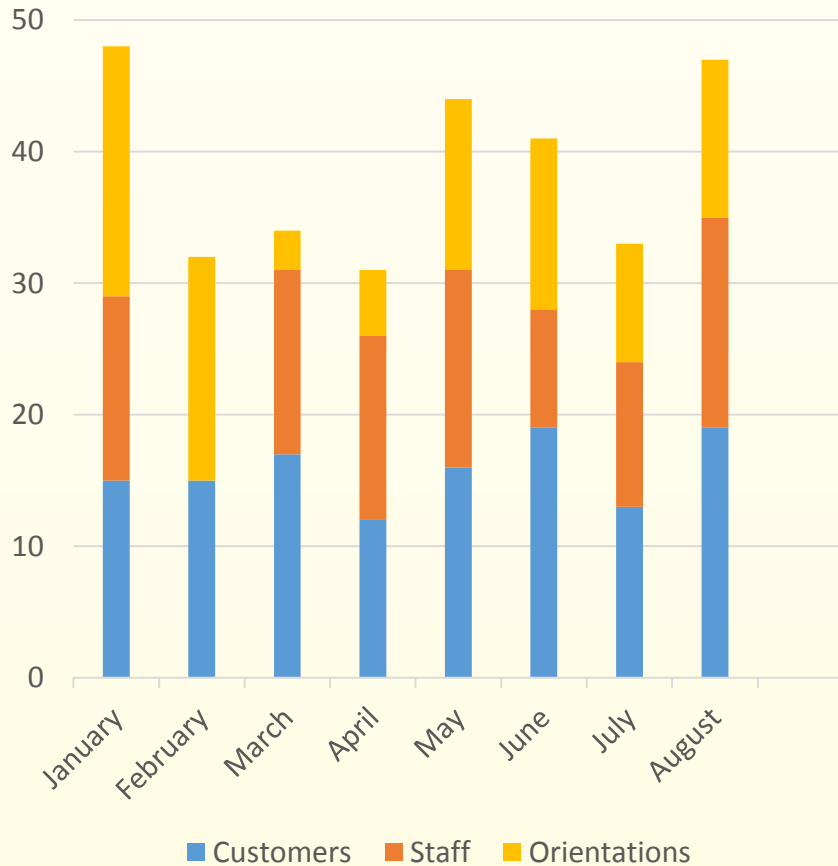
# Current process: TCC/CVB Joint Use Library

- Orientations
  - No set number of orientations per day
  - Customer puts in request, supervisor assigns request to staff.
  - Many staff members are trained to provide orientations.
  - One-on-one appointments
- Print Reservations
  - Staff member assigned to greet and sign in the customer
- All orientations and reservations booked on shared Outlook calendar

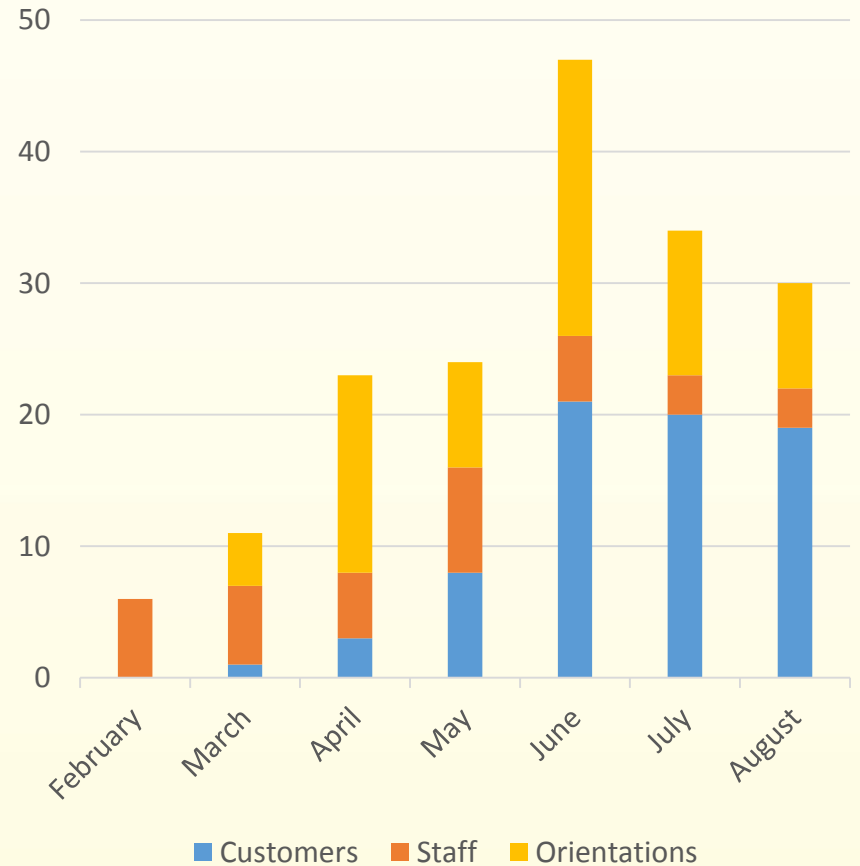


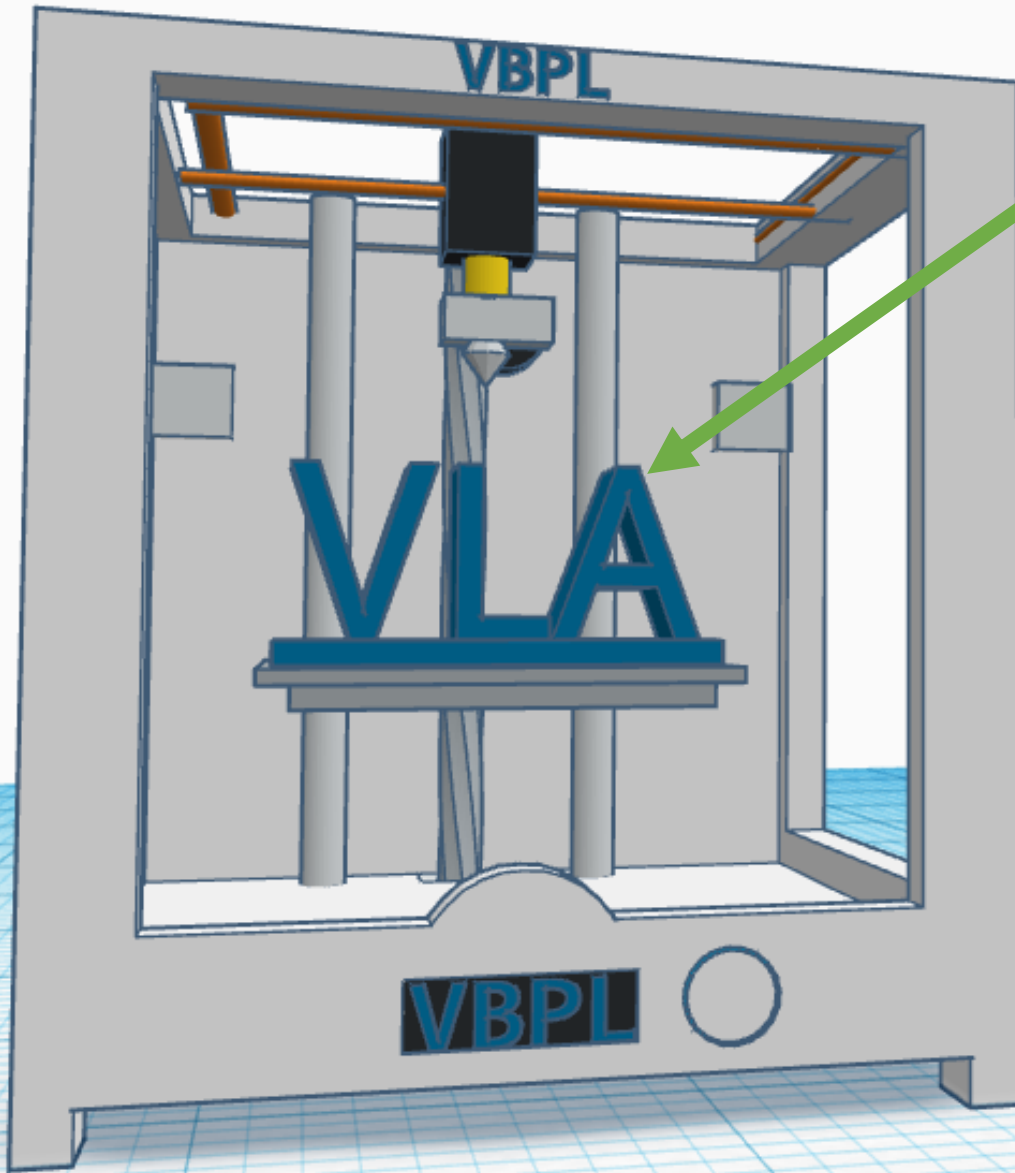
# Reservation Data 2017

## Central Library Reservations



## Joint Use Library Reservations





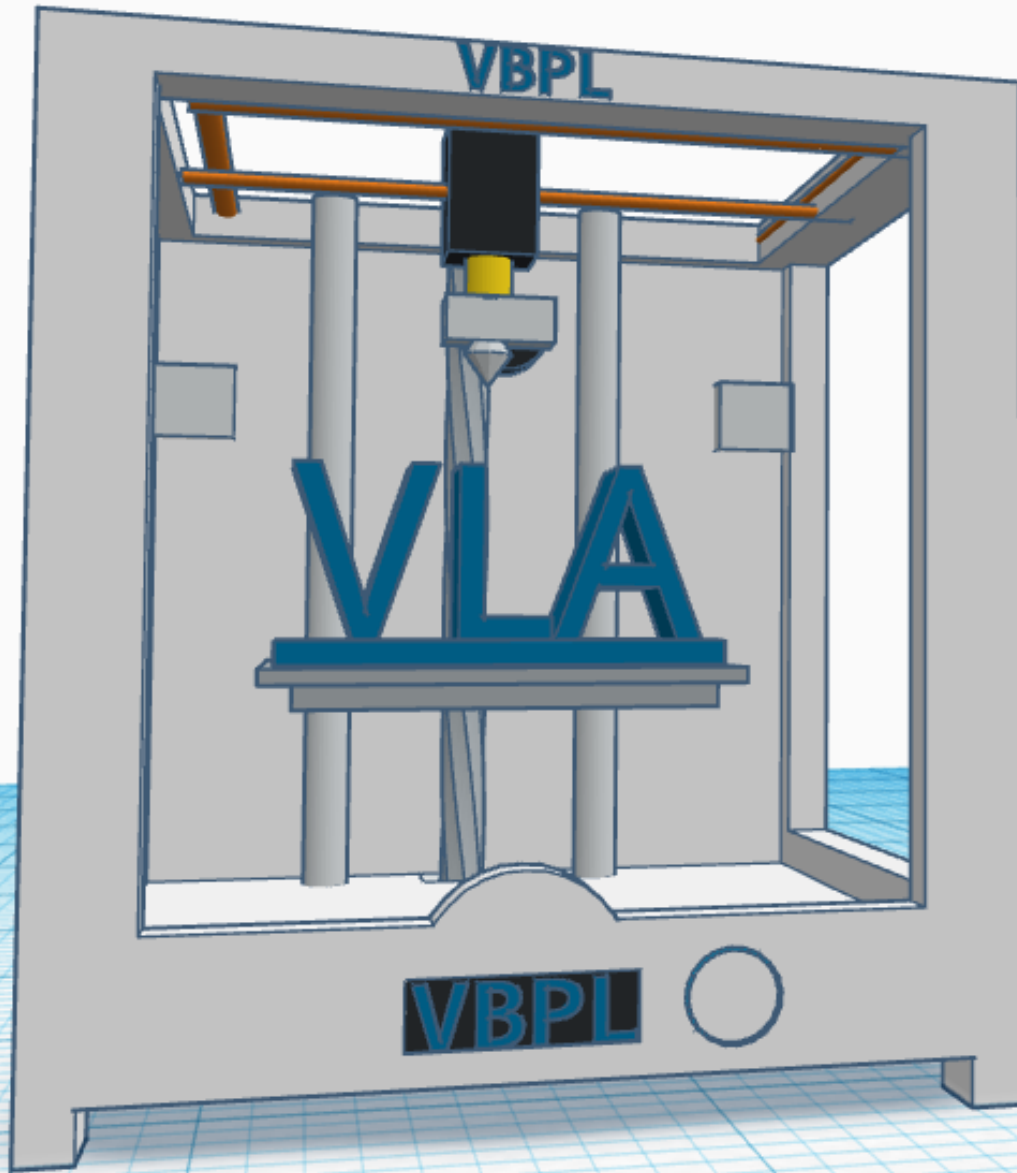
Layer 4:

The Future

What Comes  
Next?

# The Future

- Printers dedicated for library programs/outreach
- Different types of printers and strategies to sustain and expand to meet customer demand
- Improved reservation and training processes
- Revisiting policies/procedures



# Layer 5:

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## Suggestions and Questions

Building Your Own  
Service Model

# Thing to Consider

- Customer base and community need
- Budget
- Staffing
- Technology requirements
- Equipment upkeep
- Supply replenishment
- Overall goals—think strategically
- Setting realistic expectations
- What are other libraries doing?



# Questions?



# Resources

- Sample policies:
  - [Sacramento Public Library](#)
  - [D.C. Public Library](#)
  - [Denver Public Library](#)
  - [Fayetteville Free Library](#)
  - [Westport Library](#)

# Resources

- Lichaa, Zach and Charlie Wapner. [\*Progress in the Making: Librarians' Practical 3D Printing Questions Answered\*](#). ALA Office for Information Technology Policy, May 2016.
- [\*Making + Learning in Museums & Libraries: A Practitioner's Guide & Framework\*](#). Institute of Museum and Library Services and Children's Museum of Pittsburgh, [no date].

# Evaluation

<http://tinyurl.com/th2017vla>