Project Summary

Working Title of Project	Madison Library Makerspace
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Project Proposal: Madison Library Makerspace

Project Proposal

Executive Summary

The Makerspace will provide a variety of modern tech equipment, such as a 3D Printer, Cricut Machine, and Sphero Robots, as well as access to more traditional maker technologies such as sewing, button making, and crafting, to be utilized by the library community. Library staff will provide training to potential users, as well as offer classes and programs within the space.

The purpose of the Makerspace is to provide patrons opportunities to interact with both new and traditional technologies. The Makerspace will encourage innovation and provide opportunities for hands-on experimentation in the community.

Statement of Need

As the scope of library services continue to change, the Madison Library is looking to expand what we offer to our community. The inclusion of a Makerspace within the library will allow us to offer more innovative tech opportunities to a variety of age groups.

Internal Needs

- Increase overall library use through new services and programs
- Increase use of the library by teens and new adults
- Encourage library staff awareness and familiarity with new technology, as well as the opportunity to engage with program participants

- Better position the library as a technology and innovation hub in the community

External Needs
- Increase technology training opportunities to the community
- Increase public access to new technologies
- Liaison with local schools, specifically the Madison Junior School, to increase technology programming for students
- Offer a space for hands-on innovation and creativity

Project Goals

1. Creation of a flexible, mobile Makerspace in the library by fall 2017.
2. Equipment for Makerspace purchased, including all carts and accessories necessary
3. A select number of staff members trained on equipment purchased
    a. A few staff members will be trained on all equipment
    b. Additional staff members will be trained on select equipment if available
4. Schedule of classes available for patrons of all ages.
    a. Classes will be ongoing
    b. Classes will be offered and tailored to specific age groups
    c. General orientation class will be created for adults and tweens/teens looking to use the Makerspace during open lab hours.
5. Schedule of open-lab hours for the Makerspace created.
6. Establishment of a public relations plan of action.
    a. PR Plan will include social media roll-out
    b. PR Plan to include approaches for multiple audiences/age groups

7. Establishment of a Makerspace Policy.
    a. Policy to include safety guidelines.
    b. Policy to include adjusted guidelines for separate age groups

Constraints

Budget: We currently do not have a set budget. Further funding for the Makerspace would need to be through grants or the Friends of the Madison Public Library (FMPL). FMPL has already expressed interested in funding. Rotary Grant can be used towards materials.

Location: There is no permanent location currently available for the Makerspace.
We will need two locations:
- Locked storage area where equipment can be safely stored
- Room available on a semi-regular basis to set up the Makerspace
    - Needs to be large enough to accommodate the equipment (including permanent tables or the ability to set-up folding tables, and multiple power outlets)
    - Have a capacity of 15-20 people at a time.

We will also need a means to safely transport the equipment.

Staffing: Limited staff available to staff the Makerspace.

Training: Training will need to be provided to all staff who will be working in the Makerspace.

Noise: Makerspace may be loud so will need to be in an enclosed room.

Safety: Safety precautions will need to be made:

- Certain objects in the Makerspace, such as the 3D Printer, can be a potential safety hazard if not used correctly or supervised.
- 3D printer may need a ventilated room.
- DIY crafts that x-acto knives, hot glue guns, or other materials can potentially harm someone.

Requirements

Given your operational context, describe what needs to be in place during the project and afterwards in order for the project to be successful. In your discussion, consider the constraints you identified above and, if necessary, define requirements to compensate for constraints.

During the Project

- **Logistics**
  - Identify location for storage within the Periodicals Closet and clear the area.
  - Purchase carts, boxes, and other necessary storage materials.
  - Secure funding through Grants or Friends of the Library funds

- **Human Resources**
  - Identify which library staff members should be involved
  - Secure staffing and coverage of the Makerspace
- **PR Campaign in advance of opening:**
  - Press Releases sent to the local papers
  - Information sent to local schools
  - Promote on Social Media venues
  - Promote on Library Website and Rosenet (Borough Website)
- **Training Staff**
  - Set aside enough time for staff to learn new equipment
  - Bring in outside trainers if necessary
- **Makerspace Schedule**
  - Create a schedule of open lab times for the Makerspace
  - Create a schedule for times we would host programs

- **Safety Solutions:**
  - Create orientation classes for all users of the Makerspace before they can use it.
  - Limit use of certain equipment to older children and adults.

After the Project

- **Plan Classes**
  - Select age groups to work with
  - Assign staff
  - Ongoing training of staff on new equipment
  - Advertise and promote

Time vs. Relevancy

Time:

- Initial equipment selected and on order by June 2017
- Staff trained by Sept. 2017

PR in place by Sept. 2017
- Makerspace completed by Oct. 2017 (with a Grand Opening)
    - All involved staff trained on equipment
    - All initial equipment and accessories received and set up
    - Makerspace equipment will have sufficient storage area in Periodicals Room using existing shelving.
    - Makerspace equipment is able to be easily transported to Rushmore Room, Local History Room, or other room of a capacity of approx. 15-20 people.
        - Rooms have electrical outlets.
        - Rooms have either a stationary large table or room for folding table to be brought in.
        - Rooms have sufficient ventilation if the 3D Printer will be used in them.

Relevancy
- Because of the nature of the Maker Spaces and technology, it will need to be consistently evaluated as trends change. The scope and mission of the Makerspace is subject to change periodically upon review.

Impact: Costs & Risks

Opportunities:
- Positioning the library as a place for innovative learning. Keep expanding our role as a creative center.
- Bringing in new community of library users (i.e. makers or curious users) to the library.

Effect on business processes:
- New talents or skills may be required for any future hires.
- Initial low program attendance until a reputation and schedule are built
- Increases in program costs
- Part-time staff involved may need to take on additional hours

Staffing
- Staffing for the Maker Space
    - Maker Space will need to be staffed when open.
        - potentially 1 to 4 hours a week of staff time for open lab.
    - Staffing the Maker Space may cause staff shortages in other areas of the library.
    - We may need to train additional staff (currently, two full time staff and two part time staff available)
    - Makerspace will divert staff attention from their current responsibilities.
- Classes for the Maker Space
    - Staff is needed to teach classes/run programs in the Makerspace
    - Staff will need off-desk time to plan programs - classes may take a significant amount of time to plan.
    - These times may impact schedules.

Effect on client base
- May create more noise in the adult room
- Patrons may disagree with deviation from traditional library services
- Patrons may be effected by staff members being diverted to manning the Makerspace

Budget
- Equipment/Materials cost
        - Ultimaker 3D Printer (already purchased)
        - Cricut Machine (already purchased)
        - Sphero Robots + Power Pack: $[redacted]
        - littleBits Gizmos & Gadgets, 2nd Edition: $[redacted]

- Snap Circuits: approx $[redacted]
- Chromebooks x6: (already owned)
- iPad and Galaxy Tab (already purchased)
- Button Maker: approx $[redacted]
- Raspberry Pi: approx $[redacted]
- Squishy Circuits: (already purchased)
- Arduino Ultimate Kit: $[redacted]
    - Total: approx $[redacted]

(LibraryLinkNJ funding will potentially go towards this total)

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- Accessories cost
    - Printer cart with storage: $[redacted]
    - Plastic lidded storage containers for supplies: $[redacted]
    - Rolling tote cart: $[redacted]
        - Total: approx $[redacted]

- Staff training costs
    - Potential cost of outside trainer
    - Cost of staff work time taken from other tasks.
    - Cost of additional hours for part-time staff that take on roles in the Makerspace.
- Budget will need to anticipate funding for replacement equipment as technology changes.
- Budget will need to also anticipate funding for new technologies that become available.
- Budget for equipment maintenance and ongoing materials costs:
    - 3D Printer Materials (PLA Reels: $[redacted] per reel)
    - Computer software updates (TBD)
    - Supplies for button maker
    - Supplies for crafting and DIY (Michaels gift cards?)

Competitive Advantage

- No other public outlets in Madison have publically-available makerspace technology – or in the tri-town radius.

Impact: Benefits & Opportunities

Opportunities:

- Positioning the library as a place for innovative learning. Keep expanding our role as a creative center.
- Create opportunities for cooperative work with local schools and potentially for local businesses.
- Bringing in new community of library users (i.e. makers or curious users) to the library.
- Creating a working model for other area libraries to replicate for their own patrons.

Effect on business processes

- Workflow may need to be reorganized.
- Aligning with the library's programming and staffing schedules
- Increases in user visits, program attendance, and potentially material circulation

Staffing

- Staffing for the Maker Space
    - Staff will be better trained in technology – will translate to other areas.
    - Staff has been excited about the prospect of a Maker Space.
    - Staff will be positively challenged.

Effect on client base
- Increased use of the library
- Potential new audience for the library

Budget
- Cost-saving partnerships from partnering with local non-profits, businesses, and schools

Competitive Advantage
- We will be one of the few public libraries in the area with a Makerspace
- A special and free attraction in town that no other public space offers.

Alternative Impact

- Library is seen as falling behind technologically.
- Library loses potential new patron base.
- Other libraries offer a Maker Space instead.

Project Fit

Objectives and Mission:

- Library's mission states that: The Madison Public Library is the community's center for ideas, information, learning, and connections. The Library is the bridge which links Madison's past, present, and future. A Makerspace helps us reach our goal of being a center for ideas and information by offering a space for creation and exploration of new technologies. The Makerspace will also help bridge the past with the future by offering a range of technology from traditional sewing and crafting to robotics and 3D printing.

- Makerspace supports lifelong learning and innovation.

- The Makerspace creates opportunities for members of the Madison community to learn new skills and connect not only with technology, but with other Makerspace users.

Evaluation and Measurement

- More foot traffic to library
- Number of programs held (demand)
- Program attendance
- Feedback from patrons
- Library's visibility in the community increases
- Increased circulation (indirect)

Potential Solution

Partnering with the local school districts, nonprofits, and businesses would alleviate major costs, and evaluating staff responsibilities and assignments would assist in gaining staffing for the makerspace programs – thus creating the ability to offer consistent makerspace programming.

Alternative Solutions

If staffing and costs remain an issue we can evaluate the programming based on user interest and staff schedule to offer a truncated schedule of programming that is at a lesser frequency but high impact times. (i.e. - Quarterly program)

Contingency Plan

Risk: Low or no attendance/use of the Maker Space

- Re-advertise/try different avenues for advertisement.

Risk: Equipment Failure
Train staff to troubleshoot
Have alternative equipment in the room
Replace equipment if necessary and budget allows

Risk: No Budget

- Look into grant funding and fundraising

Risk: Limited staffing issues create strain

- Train additional staff members.
- Include necessary skills in all future hires and job descriptions.