Fines, fees and funding: makerspaces standing apart

By: Michael A. Crumpton

Abstract:

Purpose
– The purpose of this article is to discuss operational components associated with creating a makerspace unit or department within a library.

Design/methodology/approach
– Several considerations are discussed that should be considered for successful implementation of a makerspace in a library.

Findings
– Makerspaces add a unique and fresh element to libraries and should be provided a sustainable model up front.

Originality/value
– The ideas and concepts expressed are those of the author.

Article:

As part of the effort to broaden the appeal of enjoying library space and to participate in transformative learning activities, many libraries and museums are transforming part of their space into Makerspaces. Most commonly, Makerspaces provide access and exposure to equipment and technology that allow patrons to move their ideas into digital design or potentially

create real objects, such as with 3D printing (Koh and Abbas, 2015). This includes libraries of many types – academic, public and school media libraries – which allow creativity at a young age while also promoting innovation and entrepreneur skills.

This makerspace movement influences some of the operational aspects involved with investing in makerspaces, including the technology and equipment that should or could be included. Different library organizations have approached adding makerspaces and related services in different ways and are also starting to address policy and sustainability issues. Consideration must also be given to establishing proper spaces and the supporting infrastructure needed for operation. This means needs must be accessed to determine facility requirements as well as location, which can also be a factor so that the area is accessible to those who are expected to use it.

Great examples exist, demonstrating the advantages and benefits that makerspaces have produced in libraries worldwide. Libraries overall can become a leader in providing stakeholders and communities with the tools and expertise needed to transform ideas into meaning products or formats that elevate concepts to another level. These can become participatory activities that will engage patrons and create a large impact on larger organizations and communities (Lotts, 2015). To make this leading effort fruitful and to provide meaningful results several issues must be managed.

Fines

Fines really refer to some of the legal and/or ethical issues that surround makerspace use within publicly funded institutions. Issues such as intellectual freedom, patron privacy or use of public information can take on new forms with makerspace initiatives. Library policies will have to be adjusted to provide local guidelines on how to mediate these issues when they occur. American Library Association's (ALA) Office for Information Technology Policy recommends that acceptable use policies be written, to protect users' intellectual freedom as well as addressing concerns over safety access, liability and legal use of equipment designated in makerspaces (Wapner, 2015).

The policies should carry the spirit of core librarian values that provides and fosters learning opportunities and promotes the engagement of knowledge by experts and entrepreneurs. But, as with most equipment, liability issues exist that need to be addressed either through training, disclaimers or release statements. Many public libraries conduct training sessions for patrons before allowing use of the 3D printer, for example. This is an example of one such form: http://ppld.org/sites/default/files/c3/makerspace/makerspaceadultuseagreementrelease.pdf

Some libraries spell out in their policies guidelines on being fined if damages are incurred during use. This of course is to encourage patrons to take the training and work with library staff before attempting to perform a function with uncertainty.

Fees

The use of technology, in particular, with makerspaces can be expensive. Aside from the startup costs of equipment and 3D printers, which are still on the pricy side, sustaining ongoing costs should be considered in the initial set-up. Many libraries have already added fees for usage to their list of services charged listing. This can be time for wear and tear on the equipment and to pay for maintenance agreements or potential service calls, use of materials like spools of filament or time for staff consultation and general overhead. It might be important to benchmark these fees so that charges to patrons are consistent across library systems or neighboring institutions.

Fees are generally considered necessary for sustainability and other options might exist to raise money for ongoing operations. Events such as makerspace fairs, fundraising campaigns or creating maker clubs can all be sources of revenue to help sustain and/or expand on services and options associated with makerspace activities (Garcia-Lopez, 2013).

Usage fees can also narrow the pool of users down to those who are serious about their need. Libraries providing makerspace equipment, such as 3D printing, will see high demand, over businesses that are charging for the same services on a profit model. Users need to recognize that the benefits to a library of having expensive equipment available for public use outweigh the nominal cost of charging a usage fee to sustain services.

Funding

Another aspect is to look at funding options, including grant funding as either a start-up or service investment and the opportunities that can be created to develop a sustainable model of revenue that helps offset the costs associated with these activities. Developing a makerspace can be much the same as starting a business and creating a business plan for growth.

Many examples exist regarding grant-funded start-ups for makerspace initiatives. In the case of grants, a proposal or business case has been developed from which the grant award is linked to with expected outcomes. This usually includes a budget and identifying expenses, just like a typical business plan (Cavalcanti, 2013). In the case of libraries, this is usually focused on the equipment and supplies as overhead and facility costs are usually absorbed within the larger budget.

As grants expire, it is important to transfer responsibility of equipment refresh cycles, use of supplies and possible staffing costs to a budget line. Grants are typically meant to create the opportunity for an initial experience in a new activity but if successful, the organization should find ways to continue funding beyond the life of the grant. This includes other equipment and needs beyond the specific makerspace-related equipment, such as a 3D printer. Items such as computers, software, furniture and accessories would all need to be recognized for ongoing replacement or upgrade.

Space and people

Having a space that is appropriate for the makerspace environment is critical from the beginning. In many cases, having the available space becomes the trigger to create or transform an area into

a location that can be dedicated to the makerspace concept. In other cases, seeking space options becomes part of a start-up need and could be included in a grant proposal (Garcia-Lopez, 2013).

Spaces designated for makerspace activities should be renovated to provide all the needed attributes that the space will require, with room to grow. This might be different than more traditional spaces and a review of infrastructure might be needed. Noise, odors from the printer, enough electrical outlets, data drops and group needs, all might be considerations for the space design. Storyboarding with future users might be a way to identify all of the components expected.

An example of identifying space needs comes from Samantha Rich, who conducted an assessment on the role of makerspaces in an academic library. In her assessment, she asked about access to various pieces of equipment and software, all of which could be housed together for convenience and related needs (Rich, 2014). These types of activities help to determine what the initial investment in space needs to be and also can glimpse the future for what growth opportunities might be available.

Libraries have always been a "people" business with core values to help users find and evaluate resources and knowledge. Makerspaces create an opportunity for a different type of interaction with patrons that encourages innovation and new ways of teaching and learning to support user needs. Therefore, library staff members who work in makerspace areas must develop and learn new skills and abilities to share knowledge and help guide users.

Koh and Abbas (2015) recognized the different skills that might be needed to work in makerspaces or museum learning labs. They conducted an assessment to determine the competencies needed by staff working in this new type of space. From their research, they identified the key competencies as:

- Ability to learn: This addresses the innovation and exploratory nature of makerspaces.
- Ability to adapt to changing situations: Flexibility is important for situational response that may occur.
- Ability to collaborate: Staff will need to interact with a variety of users, many non-traditional from previous expectations.
- Ability to advocate: This helps provide an identity for makerspaces as an entity.
- Ability to serve diverse people: Working with different cultures and disciplines could be important to the innovation process.

These competencies are personal attributes that can transition into technical knowledge, which could determine both a successful performance for the librarian or staff member and satisfaction and a rewarding experience for the user.

Summary and conclusion

This column is to encourage continued growth with the makerspace movement by recognizing factors that will influence the ability to be sustainable going forward. As grants and funding models are created to provide startup operations, developing a plan of sustainability up front will

help ensure a deeper commitment and longer lasting enterprise. Fines and fees structures should not be seen as punitive but as supporting ongoing costs and sustainable efforts. Identifying and properly supporting activities with appropriate space is critical to continued efforts as well as making sure personnel working in the makerspace are the right fit with the competencies needed to embrace the transformative concepts to be applied.

Makerspace activities can have a large impact on the libraries' professional image by dissolving the myth of stoic or old fashion. Makerspaces can become the element within a library organization that becomes the platform for change and is fueled by the energy of its stakeholder and community (Levine, 2015). Even academic libraries become a revised identity to students, when makerspace services are available (Pryor, 2014).

This same sentiment was reported by Abram and Dysart (2013) from a symposium in Canada regarding understanding what opportunities makerspaces can provide libraries. They summarized that within the maker movement, opportunities exist for libraries to contribute to education, creativity and innovation for their stakeholders and patrons. This opportunity is also where libraries can take the lead to produce new results for a dynamic and changing world.

Reference

1. Abram, S. and Dysart, J. (2014), "The maker movement and the library movement", *Feliciter – Canadian Library Association* , Vol. 60 No. 1, pp. 11-13.
2. Cavalcanti, G. (2013), "Making makerspaces: creating a business model", Makezine, available at: http://makezine.com/2013/06/04/making-makerspaces-creating-a-business-model/
3. Garcia-Lopez (2013), "6 strategies for funding a makerspace", Edutopia, available at: www.edutopia.org/blog/6-strategies-funding-makerspace-paloma-garcia-lopez
4. Koh, K. and Abbas, J. (2015), "Competencies for information professionals in learning labs and makerspaces", *Journal of Education for Library and Information Science* , Vol. 56 No. 2, pp. 114-129.
5. Levine, B. (2015), "Knight foundation ponies up $3M for projects that 'leverage libraries as a platform'", Venturebeat.com, available at: http://venturebeat.com/2015/01/30/knight-foundation-ponies-up-3m-for-projects-that-leverage-libraries-as-a-platform/
6. Lotts, M. (2015), "Implementing a culture of creativity", *College & Research Library News* , Vol. 76 No. 2, pp. 72-75.
7. Pryor, S. (2014), "Implementing a 3D printing service in an academic library", *Journal of Library Administration* , Vol. 54 No. 1, pp. 1-10.
8. Rich, S.N. (2014), "A survey of makerspaces in academic libraries", UNC Master's Paper.
9. Wapner, C. (2015), "Progress in the making, 3D printing policy considerations through the library lens",*OITP Perspectives* , Vol. 3 No. 1, pp. 1-20.

Further reading

1. Colegrove, P. (2014), "Making it real: 3D printing as a library service", Educause Review Online, available at: www.educause.edu/ero/article/making-it-real-3d-printing-library-service.

Corresponding author

Michael A. Crumpton can be contacted at: macrumpt@uncg.edu