Abstract:

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The purpose of this paper is to analyze the user agreements of makerspaces in public and academic libraries. User agreements, also known as maker agreements, user forms and liability forms, can be very important documents between library patrons, staff and faculty. User agreements are similar to the earlier creation of acceptable use policies for technology use in libraries. The author of this study will delve into the user agreements created for public and academic libraries across the USA.

Design/methodology/approach
The researcher used content analysis to investigate 24 different user agreements written for public and academic library makerspaces. NVivo qualitative data analysis software was integrated into this research to aid in the breakdown of commonalities across terms, themes and purpose within the user agreements.

Findings
Although makerspaces are a very exciting topic in the field of library science at this time, the implementation of a maker learning space is still new to many libraries. Creating a user agreement for a makerspace is newer still. Most user agreements in this study were six months to a year old. Some consistencies found across makerspace user agreements include liability waivers, permissions for minors, safety, copyright and technology replacement costs.

Originality/value
At this time, most publications on makerspaces are held in the realm of popular publications (blogs, magazines, zines, etc.). The body of peer-reviewed and scholarly research on makerspaces is growing. Makerspace user agreements are new to this growing field of interest, and a content analysis of these documents will pave the way for the writing of future forms.

Keywords: Public libraries | Academic libraries | 3D printing | Liability forms | Makerspace | User agreements
Article:

Introduction

Technology is ever-changing, and as it alters, patron needs and library services evolve with it. More libraries are incorporating makerspaces for their students, clients and consumers in the creation of information and knowledge (Slatter and Howard, 2013). Although the foundational services of libraries have not changed over the years, the role they play in their communities continues to change and grow. Maker learning spaces are just one example in the expansion of services starting to be offered from libraries around the world (Murray, 2014). Makerspaces are settings to create, play, craft, explore, think critically, invent and collaborate. They can stand independently or be part of a program within a school, museum or library. These learning and exploratory locations can be called by many names, such as hackerspaces, tech labs and fab labs, but the most commonly used term is makerspace. No two maker learning spaces are the same, with each one having its own clientele, staff and menu of offered services.

A growing number of library makerspace staff and faculty, particularly at the public and academic levels, have begun to incorporate user agreements for their patrons and students. Similar to library acceptable use policies (AUPs), makerspace user agreements provide instruction and parameters to a library’s maker learning space, describe technologies and training offered as well as explain expectations for the space. Not all libraries with makerspaces incorporate them, but a growing number of libraries are integrating user agreements into their makerspace locations. Makerspaces offer many new learning opportunities, involving new technologies such as three-dimensional (3D) printers, laser cutters and digital recorders. Providing patrons with a makerspace user agreement can help them understand the expectations for using the space.

This paper reports the results of a content analysis of 24 user agreements from public and academic libraries based in the USA. Commonalities in language, content and terminology are shared. Makerspaces in libraries are quite nascent to the field, user agreements for these spaces newer still, and at this time, there are no standard formats or uniform templates for makerspace user agreements. It is the author’s hope that this content analysis and the sharing of user agreements from peers in the field of librarianship will aid in garnering new ideas for future agreement forms.

Review of the literature and background

At the writing of this article, very little research had been published on the topic of user agreements or policy and makerspaces. The 3D printer, a common technology used in makerspaces, has a growing body of research in policy with a focus primarily on product liability, trademark and copyright infringement. When delving into the literature of policy and makerspaces, AUPs for libraries form the foundation of makerspace user agreements and liability forms. A technology policy, simply defined, describes who can use the computer facilities in an organization and what they can be used for (Scott and Voss, 1994). Another potential definition of an AUP is a written or online document that organizes technology resources in an organization and the consequences for using those resources in an inappropriate
manner. The focus is on the rules, the space and technology, along with how each should be used.

Scott and Voss (1994) wrote *Ethics and the 7 P’s of Computing Use Policies*, an article that described a seven-step model of creating a formal policy for computing in locations of higher education. Scott and Voss felt that each policy should contain the following criteria:

- **Participation**: Where a well-represented group as a whole takes part in writing the document.
- **Partitioning**: Having the policy separated into sections, easy to navigate.
- **Philosophy**: Purpose of the space and what it can be used for.
- **Privacy**: Respect for the privacy of the users and descriptions delving into that level of privacy.
- **Persnickety**: Rules of the space, what users are able to do and what they cannot.
- **Phog Phactor**: Making sure that the policy can be read and understood by the intended audience.
- **Publication**: How will the policy be shared.

While Scott and Voss (1994) focus solely on computing use policies in higher education, their ideas hold merit in 2015. Having a well-represented group from a library community, create an easy to read document that ensures that the safety and privacy of library patrons in a makerspace is valid and important today. While Scott and Voss’ article was written too early to include the makerspace ideal, the potential connection with today’s technology is very relevant.

McMenemy (2014) and Laughton (2008) investigate AUPs in their research. McMenemy explored issues in AUPs for library facilities and service access by randomly selecting 20 AUP documents available from public libraries within the United Kingdom. A discourse analysis is applied looking at themes, language and point of view in each written policy. Many AUPs include language involving aims and objectives for provided services. Common language included eligibility of access to library services as well as concerns toward illegal and unacceptable use in the library policies that were part of this research. McMenemy (2014) stated that liability is a viable and strong concern for libraries, but promoting services in a positive way and making them accessible are equally important when it comes to AUPs in libraries. He concluded with the idea and recommendation of having a common or standard AUP among libraries in the UK instead of a newly created form written by each library branch or location.

Laughton (2008) built a hierarchical analysis of AUPs using a literature review to define, recommend and evaluate criteria in AUP documents. In this article, it is recommended that AUPs be drafted to fit the needs of the organization. Usually, they are written to contain broad, open to debate policies or, on the opposite side, narrow, very detailed policies. Laughton recommends finding the space between, particularly if policies are being written with patron audiences in mind. Laughton evaluated multiple policies in this article, including Scott and Voss (1994), recommending AUP content for organizations, with emphasis on the variable nature of policies.

While AUPs build the foundation for user agreements created for makerspaces, it is the issues of liability, trademark and copyright that have an impact on the language of new agreements being written for maker learning spaces. The 3D printer, a technology increasing in popularity in libraries, is coming under continuous scrutiny for copyright, patent and trade licensing concerns.
The 3D printers offer patrons the opportunity to make an imagined idea a reality and offer a new level of innovation. This can create opportunities to steal ideas and create copyrighted products. Similar to past legal issues with online sites like Napster and the music industry, the lines of trademark, patent and copyright could be blurred. Desai and Magliocca (2014) stress that 3D printing should be regulated lightly; this type of technology is perfect for innovators. As technologies change, laws such as patent, trademark and copyright have to change as well.

Currently, there is little literature in which policy for a makerspace or maker technologies are discussed. Progress in the Making: An Introduction to 3D Printing and Public Policy is a recent publication from the American Library Association. In this online publication, 3D printing is considered, the legal implications of 3D or rapid prototype printing are debated and tips as well as examples for professionals in the field of librarianship are offered (American Library Association, 2014). Mies (2014), the author of TechSoup for Libraries’ 3D Printers and Library Policy: Cool Technology Needs Rules Too, reminds readers that 3D printing is a technology to be made available for public use. Library staff and faculty are moving from the enthusiasm for this new tool to the realization that policies, instructions and rules are in order. Mies offers recommendations to those new to providing 3D services, aspects to include in an upcoming policy and sample user agreements from libraries.

Makerspaces are a new innovation to libraries, user agreements and policies for these spaces newer still. McMenemy (2014) recommends a common or standard AUP for libraries. Currently, in the USA, there are no national standards or templates for makerspace user agreements or policies, although recommendations and template designs are starting to emerge from some public libraries. Laughton (2008) and Scott and Voss (1994) recommend writing policies directed to the patrons of each organization, creating a policy with each library and the subsequent clients in mind. This is the opposite of the standard form for all, as recommended by McMenemy. This is sure to spark an interesting debate as librarians forge ahead in creating makerspace user agreements.

**Methodology**

For this study, 24 makerspace user agreements from public and academic libraries in The USA were analyzed. To find the user agreements, a search was conducted online for public and academic libraries offering makerspaces in the USA. Once that list was complete, the pursuit ensued for libraries with maker learning locations that had written user agreements. These policies were sometimes titled as user forms, liability forms, makerspace forms or liability waivers, but the overall rationale for each form was the same – to set up parameters, explanations and patron understanding for the library makerspace.

The sample of user agreements included in this study is purposeful; only a certain number of libraries in the USA offer fully implemented makerspace services and fewer still have written user agreements for patrons and students. Librarians were contacted to obtain permission to include their libraries’ user agreement in this research. The 24 participating libraries’ user agreements were imported into NVivo software for data analysis. Commonalities elements of library makerspace user agreement’s purpose, terms and format were sought. Qualitative content
analysis was the methodology used to analyze the data, looking at the text of the user agreements to examine meanings, phrases, patterns and themes (Zhang and Wildemuth, 2009).

Results

Comparing the 24 user agreements in this research, documents varied from one to five pages in length, with one page being the most common. Making the agreements short and more direct while keeping library patrons as the focus appeared to be a common goal.

Identification

Each library had their own format for acquiring identification and signatures on their agreement forms. Irrespective of the wording used, 16 of the 24 libraries required signatures on their user agreement forms. Some agreements were for minors, or those under the age of 18 years, with the library staff needing parent/guardian signatures before the makerspace could be used. Other forms required library barcodes, signatures and local information such as phone numbers and addresses before using the maker learning area. The agreement forms were typically signed once and then kept on a file at the library. Examples of user agreement language are offered in the following statements:

Fayetteville Free Library: This public library is the first in the USA to offer a makerspace. For their Fab Lab Maker Agreement the staff seeks names, library card and phone numbers, email, and parent signatures for those under 18. They also ask how users heard about the Fab Lab and how they plan to use it.

The University of North Carolina at Greensboro’s Jackson Library pursues information on student projects in their user agreement form. They ask whether projects are personal or for a course. How files will be delivered to the Digital Media Commons, where the maker learning space is located, as well as a description of the 3D print that will be created in the center.

Patrons

Who has the right and permission to use the makerspace? For some libraries, this learning space was created only for teenagers or younger patrons. In other libraries, they were built for adults, but young people could work in the space with a parent or guardian present. Most university makerspaces were available for current students, staff and faculty. Of the 24 user forms, 19 discussed the patrons or eligibility in use of the space. Some examples include the following:

Gloucester County Library System Mullica Hill Branch: Makers under age 13 must be accompanied by a parent or guardian at all times. Parent/guardian supervision is required for all minors, as the MakerStudio contains potentially dangerous tools and the MakerStudio Jr. may contain small parts not suitable for children under the age of 3. Makers under the age 18 or those inexperienced with sewing machines must attend a sewing class before using the serger.
Denver Library User Agreement: If you are mentally older than 30, you are not allowed in the ideaLAB. Must have fun.

Use of space

What is the makerspace for? A makerspace, by design, is a location for people to gather and generate, make and share. These spaces can create partnerships, foster play and exploration and open a culture of creation (Britton, 2012). Many of the libraries in this research study shared what the maker learning space was for in their user forms:

Darien Library Digital Media Lab: The resources available in the DML are for digital projects, not general computing. Digital projects are defined as, but not limited to, photography, film recording, photo and video editing, eBook creation, animation, and website building.

Kirkendall Public Library: Kirkendall’s makerspace is called Hatch. The following is how it can be used, as described in their user agreement: The Kirkendall Public Library provides Hatch for library sponsored or co-sponsored programs which achieve the library’s goals. When not in use for library-sponsored activities, the spaces and equipment are available to individuals and non-profit groups. Primary use of Hatch is for library activities, programs and meetings.

Technology offered

Every makerspace is different. Some focus on crafting, sewing, painting and the arts. Others focus more fully on technology, programming and digital media. Quite a few have a STEAM (science, technology, engineering, arts and math) approach, where these topics are combined. Library makerspaces can be used by librarians to stimulate creativity and innovation (Small, 2014). Often, there are technologies and equipments that accompany these spaces, and 9 of the 24 user agreements in this study were written listing the offered technologies and the available tools. Some examples include the following:

Fayetteville Free Library: Most tools and equipment are available to Makers on a first come, first serve basis, for use in the FFL Fab Lab space only. Tools available for checkout must be picked up and returned to the FFL Fab Lab during open hours. Please ask staff for a full list of tools and equipment available.

Pikes Peak Library District: PPLD’s Makerspace facilities and equipment include, but are not limited to, video production equipment, recording devices, drawing tools and equipment, circuit boards, electrical wiring, electronic equipment, saws, drills, screwdrivers, routers, wood- and metal working tools, 3-dimensional copying and printing machines, computer equipment, charging stations, and wood, metal, plastic and composite supplies and materials, glue, solvents, nails, screws, and other working parts.
Neatness

Food in the library has been an ongoing debate for years. Although many libraries in the USA allow food, makerspace staff and faculty have yet to confront the issue. There is also the focus on clean up and neatness in the area. Arts, crafts, 3D printers, laser cutters, robots and knitting can be untidy projects. Who keeps the maker area clean and neat?:

Fayetteville Free Library: The Maker agrees to take precautions to avoid causing unnecessary mess or damage in the FFL Fab Lab. The Maker agrees to clean up his/her workspace in the FFL Fab lab following use, returning the workspace to its original state. The Maker agrees to inform the Staff member in the case that they are unable to return a work surface, tool or equipment to its original state.

Darien Library TEARoom: From the Darien Library, a space for children in third through sixth grades and their parents: I agree to be responsible for ensuring that the equipment and supplies are used with care and returned to their original places at the end of the T|E|A Room appointment.

Cost

Sometimes, items or technologies are broken in the library or makerspace. Who pays to have this fixed? How much does it cost to print a 3D item in the makerspace? Or is it free? The question of cost escalates when planning not only a policy but a maker learning space overall. Multiple libraries’ user agreements in this content analysis included replacement and general costs:

Darien Library Digital Media Lab: If any equipment is damaged or lost by yourself or anyone with you in the DML, your Library account will be charged the replacement fee as determined by Darien Library.

North Carolina State University Hunt Library: Cost: There will be a charge of 10 cents per gram of filament used in the printing process. 3D printing costs will be charged to ONID (school) accounts. Refunds and re-prints will only be available in the event of machine malfunction.

Pikes Peak Library District (PPLD): By signing below […]. Parent/Guardian shall be responsible to pay any PPLD charges or fees for use of Makerspace tools, equipment and materials, and for damage, loss or clean-up of PPLD property, which may be valued and billed to Parent/Guardian’s PPLD account or by other means, in PPLD’s discretion.

Safety

Maker learning spaces, their staff and faculty can offer learning experiences for students and patrons in a library setting. There can also be many opportunities for unsafe situations. Including safety measures in a makerspace user agreement is highly recommended. For youth in makerspaces, clear consistent rules and procedures are needed that are understood and
recognized by all library staff (Jarzombek, 2012). Safety was expressed in 17 of the 24 user agreements analyzed in this research study:

*Kirkendall Public Library*: Hatch equipment cannot be used to create items intended for sale, commercial use or items that could be construed as weapons. The Library reserves the right to halt, delete, or otherwise disallow the creation of items that violate this or other library policies.

*Gloucester County Library System Mullica Hill Branch*: Wear proper attire & safety equipment. Safety glasses and gloves are available in the MakerStudio, Wear closed-toed shoes, Tie back long hair, Avoid dangling jewelry, Wear clothing appropriate for the activity being performed, and Keep sharp tools out of pockets.

*Sparta library*: Sparta’s Makerspace is called the Space@Sparta: I hereby accept responsibility for the payment of any emergency transportation and/or treatment. I further certify that I am in good physical condition, and have no medical or physical conditions that would restrict my participation in this activity or program. Denver Public Library: No rough-housing (except virtually!).

### Liability

With the question of safety comes the conversation of liability. Library staff and faculty want to keep their patrons safe but will need to keep their institution protected as well. Having a liability statement in a user agreement is advised. Only 16 of the 24 forms analyzed included liability in the user agreements. Some statements include the following:

*Gloucester County Library System Mullica Hill Branch*: (Print name), the Maker, do hereby for myself, on behalf of my heirs, successors, and assigns, in consideration of being permitted to use tools and equipment, waive any and all claims against the Gloucester County Library Commission for any personal injury, illness, death, or liability resulting from or arising out of the carelessness, recklessness, negligence and/or fault of the Gloucester County Library Commission. The Maker, hereby for myself, on behalf of my heirs, successors, and assigns, in consideration of being permitted to use tools and equipment, agree to release and indemnify and hold harmless and defend the Gloucester County Library Commission, their offices, agents, volunteers, and employees from any and all liability, loss, claims, and demands, actions, or cause of action for the death or injury to any persons and for any property damage suffered or incurred by any person which arises or may arise or be occasioned in any way from the Maker or possession of tools, technology, equipment or supplies I am using in the MakerStudio@GCLS. Any available insurance of the Maker’s shall be primary and the Gloucester County Library Commission’s be Non Contributory.

*Pikes Peak Library District*: The undersigned Parent/Guardian expressly assumes, for such Minor User and the Parent/Guardian, and their respective heirs, family and estate, executors, administrators, assigns, and personal representatives, all Risks arising from the Minor User’s participation in Makerspace Activities, whether those Risks are known or
unknown, or are predictable or unpredictable, or are Risks inherent in the Makerspace Activities.

Pikes Peak’s user agreement continues in a manner very similar to the Gloucester County Library System in making sure that the library will be released from all claims, demands and liabilities. Within this research study, both Pikes Peak and Gloucester County Library System have the most thorough liability statements.

**Intellectual property**

One of the more popular technologies in makerspaces is the 3D printer. It is not the only piece of equipment in a maker learning space where copyright and intellectual property rights can come into question, but rapid prototyping and 3D printing have created a growing number of concerns. The question of design as well as re-creation or replacement of components and parts has surfaced (Kurfess and Cass, 2014). As functions of 3D printing continue to grow, users will have more opportunities to possibly infringe on intellectual property rights (Dillon, 2014). Multiple user agreements in this research included copyright or intellectual property statements:

**Darien Library Digital Media Lab:** You are responsible for your respecting intellectual property rights as you create content. By signing this form, you are releasing Darien Library of any responsibility for any infringement of intellectual property rights that may occur.

**North Carolina State University Hunt Library:** I warrant that I am authorized to use the applicable file, data, images, or any other materials (collectively “Content”) for 3D printing and that the use of the Content will not infringe upon any third-party’s copyright, patent, trademark trade secret or other proprietary or intellectual property rights. I agree to use the 3D printer exclusively for lawful purposes that respect the policies of North Carolina State University and the NCSU Libraries as well as the safety and well-being of all students, faculty, staff, and patrons.

**Miscellaneous**

Other items of interest were included in the library user agreements in this study. Some libraries included time limits for their makerspaces. Training opportunities and classes were mentioned in some agreements, especially in regards to safety. Others encouraged positive behavior in being open and inclusive with fellow users in the maker learning space. Many libraries had an introduction to their makerspace user agreement explaining the location and the agreement form overall. Some sample languages from these agreements include the following:

- **Gloucester County Library System Mullica Hill Branch:** The MakerStudio@GCLS is the first of its kind in Gloucester County, NJ. Many of the technologies available in the MakerStudio are not accessible anywhere else to the general public. For instance, there is no other place in Gloucester County that provides open access to 3D printing technology. GCLS will provide a safe and accessible space where anyone in the community can interact, understand, and create using the technologies available in the space. Our goal is to foster creative-thinking in the young and old alike and encourage community-based
innovation and entrepreneurship in the fields of Science, Technology, Engineering, Arts, and Mechanics (STEAM).

- **Kirkendall Public Library**: The Kirkendall Public Library enhances our community members’ lives by offering experiences to support and nourish the community’s spirit, imagination and culture, providing opportunities for personal growth and success, contributing to the growth and development of our families and children and supporting the economic vitality of our community.

**Discussion**

When planned well, a user agreement or policy can strengthen a library and the offered services (Crawford, 2005). This content analysis of user agreements in the current study has shown consistencies in the methods in which these policies are being written for makerspaces in libraries. While there is, currently, no national standard or template in the USA for user agreements, every form has been custom tailored for each library’s patron, student or faculty population. They are consistent in the use of a positive, welcoming tone while making clear the outcomes of using the maker location in an inappropriate manner.

Many of these user agreements are available online and are easily accessible to library users both in and outside of the library locations. If library patrons are interested in using the makerspace, they can print and sign the form before coming to the library. If visitors are simply curious about the maker learning area, the information is available for easy viewing. This ease of access also aids those in the library field interested in creating their own makerspace user agreements in the future.

In the future, more research is needed in the field of user agreements and makerspaces. Publications in policy and maker learning spaces are meager at this current time. Further content analysis is recommended. The current study focuses only on libraries based in the USA. A comparison of user agreements from international libraries would strongly add to the body of research. Looking into the prospect of a generic or template-based user agreement could also enhance the field of research. The question remains that with so many libraries, services and patron needs, would this idea work? A generic outline similar to Iowa Library Services (2014) could be a place to start. Public library districts could easily share a user agreement form. Additional studies focusing on the issues on copyright infringement, trademark, intellectual property and 3D printing in libraries are also needed.

**Conclusion**

Often policies can be seen as rules. Policies can be created, so that the plans and ideas of administrators are delivered to users for particular outcomes and behaviors. (Innocenti *et al.*, 2010). The writers of the user agreements in this research study focus on creating an avenue of understanding for library users, instead of rules. These agreement policies introduce library patrons to the maker learning area, explain technologies and services, describe expected behaviors and protect the library users, staff and faculty from harm. They go beyond rules; they engage comprehension and employ new learning opportunities in the educational environments of makerspaces.
Libraries with user agreements (selections)

- Fayetteville Free Library, Fayetteville, New York: [www.fflib.org/make](http://www.fflib.org/make)
- Space@Sparta Makerspace Liability Waiver, Sparta, New Jersey [http://spartalibrary.com/spaceatsparta/](http://spartalibrary.com/spaceatsparta/)
- Gloucester County Library System Mullica Hill Branch, Gloucester County, New Jersey [www.gcls.org/makerstudio](http://www.gcls.org/makerstudio)

References


