

Title: Measuring the Impact and Value of Makerspaces in Public Libraries

Overview: The University of Illinois at Urbana-Champaign (UIUC) and Indian Trails Public Library District (ITPLD, Illinois) propose a National Leadership Exploratory Planning Grant titled Measuring the Impact and Value of Makerspaces in Public Libraries. This **\$100,000 exploratory** project will provide the tools needed **for the development of an initial framework and future toolkit for measuring the impact and value of public library makerspaces** in the lives of users and the communities that libraries serve. Impact refers to the effect on the lives of stakeholders in promoting **lifelong learning** and exploration, increasing creative thinking and complex problem solving, and developing a community around making. Value centers on how makerspaces have helped libraries **achieve excellence** as organizations and to effective community development. As public libraries evolve to meet the lifelong learning needs of the community and offer creative spaces, traditional library measurements and statistics do not accurately reflect the full economic, educational, and social impact of the services in the community. Public libraries need to seek new ways of telling the story of their use and the transformative effect a library has on the life of the community. The proposed **one-year, exploratory planning project** would run from 9/1/2020-8/31/2021 and is intended to provide a baseline framework for evaluating a non-traditional service in public libraries which would add to the professional knowledge of public librarians nationally and help them achieve excellence in services to their communities.

Statement of National Need and Relevance to IMLS Strategic Goals and Priorities

Makerspaces, maker labs, and other inquiry-based community learning spaces can be found in public libraries across the country but there is little information on how to evaluate either the impact or value these spaces have in their communities. For example, there are many [practical guides](#) on how to develop a makerspace. There are also [several studies](#) that look at individual skills developed in makerspaces. This project will build on the work of Koh, Abbas, and Willett (2019) [and others](#) on the social roles, evaluation, and implications of library makerspaces for their communities in order to develop flexible, intuitive toolkit for evaluating the impact and value of makerspaces in public libraries. Instead of focusing on individual learning outcomes and skills development, this project is focused on understanding the value to and impact of makerspaces on the entire community. This exploratory planning grant is the first step in establishing variables for evaluation that would be used in the toolkit and determining the infrastructure for deployment. The project is in keeping with several IMLS 2018-22 priorities and goals. First, makerspaces are instrumental in promoting lifelong learning in communities and providing cross-disciplinary and inquiry-based methods of learning. Second, once completed, the overall project will help libraries build capacity through the creation of a toolkit that will help administrators design makerspaces that are trusted spaces for community engagement. Finally, the proposed toolkit will help libraries increase access by creating an evaluative instrument for determining if makerspaces and associated resources are accessible to people of all background and abilities.

Project Design

The guiding question for the overall project centers on determining the factors for evaluating makerspaces in public libraries. For this pilot study, the research team will determine a baseline framework and factors for evaluating the value and impact of public library makerspaces on communities. The research team will conduct 12 focus groups at three different libraries with four groups of targeted participants. The focus groups of 5-7 people will take place at a rural, a suburban, and an urban public library in Illinois with makerspaces that serve all ages and have been established for varying amounts of time. The focus groups will target the following participants: 1. Administrators and staff 2. Makerspace users 3. Library stakeholders who are not makerspace users. 4. Community leaders. The first two groups will account for the stated goals and outcomes of the makerspace while the third group will bring in evaluative measures from people who are general community members. The final group would include local government leaders, superintendents, and workforce development professionals who will be able to speak more broadly to community impact. This project is intended to explore the value of makerspaces for the entire community and not just for those who are directly involved in the space. The third and fourth groups are intended to find out how people who are stakeholders but not users understand the value of these spaces. The users and non-users will be selected with the help of the administration and staff. The focus groups would be held at a convenient time for the participants and all participants would receive food and allowed compensation for their time if permitted. Focus groups would take

approximately an hour and a half and questions would cover the following areas: 1. Personal history with the makerspace 2. Perceived goals and objectives of the makerspace 3. Use or non-use of the makerspace. By focusing on the value of makerspaces to three different audiences, the researchers will be able to triangulate their analysis in order to build a robust evaluation toolkit. The use of focus groups allows researchers to guard against imposing their own meaning on these spaces. Questions will be based on the previous research noted above and center on what the focus group participants' own conceptualizations of the value and impact of their local public library's makerspaces and developed by the PI, Co-PI, doctoral student, and practitioner team members and reviewed by the advisory board. This is similar to the Pew Research Center's (2016) survey on public library users where the researchers used questions about use and importance to infer the value and impact of the library on the participants. For example, impact was evaluated through survey questions that, for example, asked how the participants lives would be affected if they library closed. The focus group responses will then be analyzed to determine appropriate variables for toolkit development. The outcome of this exploratory, pilot study will be white paper outlining a baseline framework and factors for an evaluation toolkit that will be reviewed by the practitioner team members and the advisory board. The initial analysis may also be presented at conferences. The final deliverable for the overall project will be a tool that can be used to assess makerspace beyond traditional statistics.

Project Team

[PI Emily Knox](#) is an associate professor at the School of Information Sciences. She is a keymember of Makerspace Urbana and was an invited participant to the 2016 Nation of Makers Event at the White House. She has extensive research expertise in qualitative methods including focus groups. [Co-Pi Kyungwon Koh](#) is an associate professor at the School of Information Sciences. As an expert in the maker movement and learning and community engagement through libraries, she has served as PI for two IMLS-funded research projects on makerspaces. [Indian Trails Public Library District](#) is a bustling, mid-size library serving diverse communities in Wheeling, Prospect Heights and Buffalo Grove, Illinois. A recently completed library renovation added several new library services, including a makerspace. The library is led by executive director Brian Shepard, the 2019 Illinois Librarian of the Year, who has shaped and evaluated innovative public services throughout his career. Ryann Uden is the deputy director of the Indian Trails Public Library District and brings experience creating digital media labs and an active learning spaces in libraries. The makerspace is managed by Digital and Maker Services Manager, Jennifer Hovanec. She is active in regional makerspace organizations, was selected as a participant of the 2018 ALA Leadership Initiative, and also participated in the 2015 ILEAD USA. [Additional focus group site libraries](#), including the urban Joliet Public Library and the rural DeKalb Public Library, have been contacted. The team has also assembled an advisory board of leading academics and practitioners.

National Impact

As noted above, makerspaces can be found in many libraries across the country. The proposed toolkit is intended to measure whether or not these makerspaces are meeting the goals and objectives of not just administrators and boards but of all library stakeholders and communities. Assessment and evaluation of library services are key to ensuring that libraries across the country are both stewarding local resources well and meeting the needs of their communities.

Budget

The total amount requested from IMLS is \$100,000 with no cost sharing: 0.5 of one summer month salary including fringe for PI and CoPI (\$14,940); one RA to coordinate and help run focus groups and to help with data analysis, including fringe and tuition remission (\$38,785); focus group costs including participant incentives and practitioner honorariums (\$11,779); supplies including a laptop for the student and a microphone and recorder (\$1,789); transcription services (\$1,080); and indirect costs (\$31,627).

References

- Koh, K., Abbas, J., & Willett, R. (2019). Makerspaces in libraries: Social roles and community engagement. In *Reconceptualizing Libraries: Perspectives from the Information and Learning Sciences*. New York, NY: Routledge.
- Pew Research Center. (2016). *Libraries 2016*. Retrieved from <http://www.pewinternet.org/2016/09/09/libraries-2016/>