

When Libraries and Makers Meet: Increasing Community Engagement through Maker Activities

There is no one-size-fits all formula when it comes to libraries and maker activities. In fact, there are several maker models that libraries can use to engage their communities. Choosing the model that works best depends on several factors, such as community needs and interests, in addition to staff time, resources, space, and equipment that the library has at its disposal. Whether it is planning a maker event that requires several months worth of planning, or simply putting together a makercart that includes just a tape and a few craft supplies, libraries can use maker spaces to help increase community engagement while promoting creativity and hands-on learning in technology, art, and design. This article explores different maker models, in addition to the challenges and successes of several libraries in their efforts to stay relevant in a competitive technology world, where practical STEAM (Science, Technology, Engineering, Arts, and Mathematics) skills are essential, and where collaboration and teamwork are more important than ever.

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THE LIBRARY AS A MAKERSPACE

Makerspaces—also called maker labs, digital media labs, and launch pads—are collaborative spaces where library users get together to explore, learn, and create do-it-yourself or do-it-together projects that involve tech or non-tech tools. This idea of a communal creative space where library users can have access to tools and, perhaps more importantly, access to each others’ skills and knowledge, has inspired libraries to embrace the maker culture and to incorporate it into their services.

Some libraries offer digital media labs for creating digital content—movies, music, and video games—while other libraries have expanded their labs into dedicated makerspaces that offer a variety of maker equipment, such as 3D printers, laser cutters, soldering irons, and sewing machines. The Indian Trails Public Library District offers both: digital services labs (sound lab, video editing lab, and archival station) and the Launch Pad, where users are able to tinker with anything from button maker kits, crochet hooks, jewelry tools, embroidery, and sewing kits to silhouette cameo vinyl cutters and 3D printers.

Makerspace activities don’t always need to involve expensive technology. The Urbana Free Library offers 3D printers, vinyl cutters, sewing machines, electronics, and graphic tablets in its Teen Open Lab, with the recent addition of Makerspace Jr. that expands access to the lab equipment to children in elementary school. The library’s recyclables table has been as popular as the tech and maker equipment, however. Using toilet paper tubes, paper bags, and scrap paper, library users are known to make anything from animals to portable cities.

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THE LIBRARY AS A MAKER FAIRE

Maker Faires, Maker Days, STEAM Fests, or Do-It-Yourself Fests hosted by libraries are celebrations of community and library staff talents, skills, creativity, and willingness to share knowledge and ideas to help others. The desire to foster community among local makers and to gauge broader community interest in maker projects at the library have been the motivating force behind Wilmette Public Library's Maker Fest. To find speakers and makers to lead the workshops, the library formed a cross-department team; each member contacted local businesses, schools, and hobbyists to ask them to participate. In addition, the library publicized a call for makers online, via social media, and in print.

The New Lenox Public Library District took a similar approach when planning its second annual Maker Day. In addition to relying on staff talent to lead the maker activities, the library put out an application for finding potential makers and advertised it on the library's website and via word of mouth.

The Palatine Public Library District's STEAM Fair (attended by 1200 people in 2019) brought together 29 outside groups, including forest preserves, LEGO clubs, local museums, schools, universities, a herpetology program with live animals, and a band that fuses live music with original video game animations. To find speakers and presenters to lead the maker activities and workshops, the committee of seven staff members from various departments, responsible for planning the event, used staff's collective community knowledge, tapped the local Chamber of Commerce, and relied on community contacts with which it had previously partnered.



THE LIBRARY AS A MAKER CLUB

While some libraries prefer a more spontaneous environment (or the so-called "drop-in" maker sessions for all ages), other libraries have initiated a more structured approach to maker activities. That is the case with the Alpha Park Public Library's Crafternoon Delight program designed for adults. Each month, library users explore making a new craft; they are required to register beforehand, as much planning takes place behind the scenes. Often, there is a waiting list, and if supplies are more expensive, there is a small fee. As for collecting supplies and finding people to lead the workshops, the library relies on the community. One of its board members taught programs on quilting, and a patron, who turned out to be skilled at painting, offered to teach a class. Through Facebook, it found a maker to teach a hand-lettering class. The ultimate goal is to have the class available for free, to keep it accessible. One way to do so is asking for donations from local businesses. Patrons have also made monetary donations to support the program.

This same sense of bringing communities, and even libraries, together is seen at the Cary Area Public Library with its Maker Club. The library doesn't have a maker space or any large pieces of equipment such as 3D printers. It is able to allow participants to do projects that involve this equipment, however, by having a neighboring library do the 3D prints and cuts.

MAKER OPPORTUNITIES AND IMPACT

Maker activities are an excellent way to increase library outreach and to meet patrons at their point of need, without having them come to the actual building to enjoy services and offerings. That is the approach the Fountaindale Public Library District took with creating its Tinker Technology Troupe. Originally formed to initiate the STEAMbox Kits, the Tinker Technology Troupe offers activities such as robotics, vinyl cutting, 3D printing, and coding, and its programs are so flexible that they can fit almost any maker need: in-school, after school, or a special one-day event. In addition to community and school visits, the Tinker Technology Troupe manages the library district's annual Maker Faire and Make-A-Mess Fest.

Fountaindale's STEAMbox Kits are another unique way to educate and entertain K-12 students. Each kit focuses on a different science, technology, engineering, art, or math topic, and it includes equipment and instructions for hands-on activities.

When technology is not an option for community outreach, being on budget and on trend at the same time is still possible. For instance, when the New Lenox Public Library saw a decrease in teen program attendance numbers, it took a creative approach and started visiting high schools, bringing art and crafts supplies to engage students, with an emphasis on the joy and value of making things by hand. In addition, the maker activities helped with establishing good relationships and opening doors for more collaborations between the public library and the local high schools, such as book club discussions and a poetry slam.

The Glen Ellyn Public Library's STEAM Fair was also created to support the local school district's curriculum. With its fun and educational format and with more than 20 organizations presenting, the event had a positive impact not only on children, but on community members of all ages, as well.

In other cases, community groups and organizations are the ones reaching out. For example, a not-for-profit group, New Blankets, reached out to the Southern Illinois University's Morris Library (Carbondale) and offered to provide training and equipment for the Library's maker-type activities. The group has also brought in speakers and makers to lead some of the workshops. Conversely, SIU librarians visit elementary and middle schools in Southern Illinois and expose students to maker activities, especially 3D printing, where they are able to train future generations of makers. The greatest accomplishment has been working with all of the students on campus, as well as with the community, and being able to highlight local makers' skills through Morris Library's well-known open house events, which showcase maker work on campus.

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MAKER CHALLENGES

Certain technology equipment and maker supplies can prove expensive. If the budget is an issue, there are still strategies to make space for makers. One way to combat the low budget challenge is to start with what you already have, and then grow your makerspace by testing and learning what works and what resonates with your community.

For example, on a limited budget, the Grayslake High School Library initiated Maker/Breaker Space area, as well as Pop Up stations, such as Lego/K'Nex Build and Community Coloring, Post-it Note Sudoku, and Bulletin Boards. Additionally, for the highly popular Box Robot contests, students used only boxes and tape. The library has also filled in the gaps by applying for grants, searching through freecycle.org (network of people who are giving and getting reusable free stuff for free in their own towns), and seeking donations. But when approaching the community for donations, the Milledgeville Public Library advises to ask for only specific items that refill supplies you need. When the library first implemented maker activities, it put out the word to the community that it needed donations, and... the donations flowed in. Three years later, the library is still working through the initial pile of donations.

Perhaps staffing poses the biggest challenge for most libraries, especially when staff needs to learn how to use the equipment in order to help library users. Finding staff members who both know how to troubleshoot the equipment and are available to work particular weekends could be tricky. If that is the case, a solution would be to form a cross-departmental team of staff with technical knowledge, or reach out to tech-savvy volunteers. For example, The Urbana Free Library is exploring the option to reach out to teens who use the Teen Open Lab to help with technology and maker equipment. In addition, the library's teen librarian made a contact at a local Maker Fair with a library school student who expressed desire to assist with technology. The library also has a subscription to CreativeBug and is finding the videos (such as the ones on how to use a sewing machine) helpful.

When there is not enough staff to help out during a maker event, libraries (such as the New Lenox Public Library, the Bloomington Public Library, and the Vernon Area Public Library) often reach out to volunteers to help out with running stations, assisting children with projects, taking attendance, and cleaning up afterwards. When planning a maker event, however, the more staff is involved, the more coordination and communication is needed, which could bring additional challenges. One way to prevent this is to form committees of different people each year, schedule meetings ahead of time, set expectations early on in the planning process, and distribute tasks evenly among everyone involved.

MAKER CONSIDERATIONS

There are a few things to consider when planning a big maker event, in particular. For the Palatine Public Library District's STEAM Fair, some of the considerations were partners backing out at the last minute, staff sickness the day of the event, and limited parking space for attendees. Additional challenges were technology malfunctions (some of the robots the library district was planning to showcase at an in-house booth malfunctioned the day of the event; luckily, it had other robots available) and an excited community that turned out early for the fair, making setting up booths challenging for exhibitors and staff. Increasing maintenance and security staff to assist with set up, takedown, and crowd management is the plan for the library district's next fair.

For other libraries, an obstacle has been not having enough time (there are non-maker jobs to do) and getting other staff to get on board with planning maker activities, especially maker events. In that case, passive programming might be the solution, where maker supplies can be left out on a makercart or a table, with activities requiring minimal supervision and less take down and clean-up time.

And what about those solo librarians who would like to implement maker activities, but simply don't have enough time and staff to plan and implement them because they are required to staff a desk? The Milledgeville Public Library came up with a creative approach: self-guided maker programs, where it provides construction paper, stickers, pipe cleaners, markers, tape, glue sticks, and other decorating supplies. The library puts out all of the recyclables and lets the kids (and teens and adults) free-build, without supervising the activities. To prevent the mess kids would leave, the library no longer provides liquid glue. Not knowing how many people would show up for a maker activity is something else to consider. To make sure there are enough supplies, most libraries ask for registration and typically give priority to card holders.



WHY MAKERS MATTER

Given how challenging and time-consuming it could be to plan maker activities, why should a library consider launching such services? One reason is that the maker culture has presented libraries with opportunities to engage existing users, while attracting new community members by meeting their evolving needs. Individuals and communities are in a need to acquire more-advanced technology and practical STEM skills and competencies; these skills can be obtained in the library.

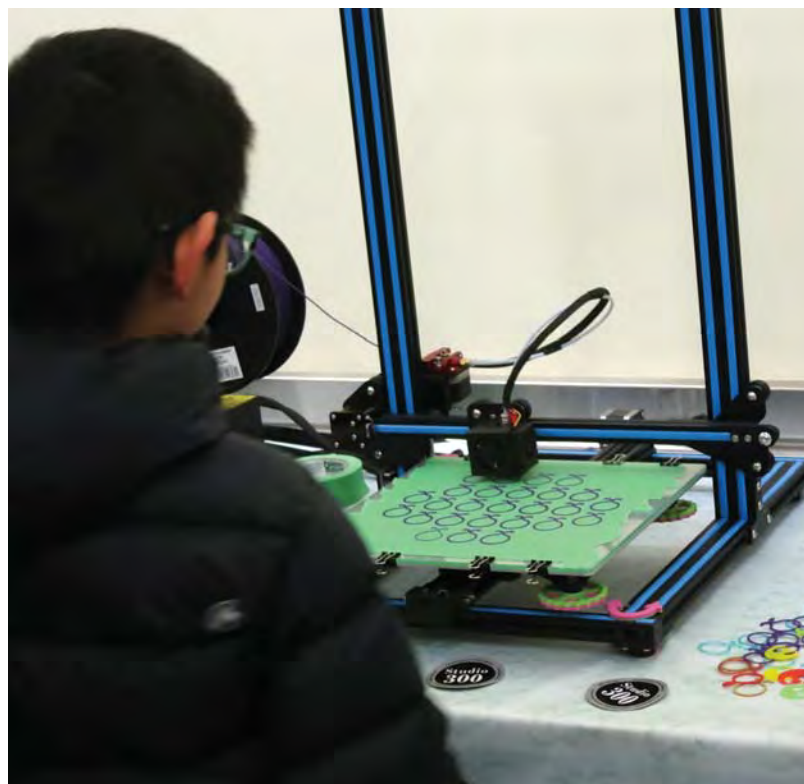
The collaboration between libraries and makers benefits both sides. The library can provide space and resources; on the other hand, makers can provide knowledge and ideas in order for libraries to develop new and relevant services. And this is how the concept of the library becoming a maker faire or a makerspace has become increasingly popular among Illinois libraries.

The positive community feedback is also an indicator that libraries should take the risk and the time to experiment and implement maker activities. The Urbana Free Library shares that it has not received negative feedback from its community. In fact, Library users have made comments such as “I’ve been wanting to do this for so long,” “We looked forward to this all week!” and “We were so excited to come back this month and make a matching pillow!” A staff member from the Wilmette Public Library commented about its highly successful Maker Fest: “The vibe in the building was very positive. You can’t measure that on paper, but it was real.”

With making, there is no right or wrong, and even if no one is learning, there is a great deal of fun and spontaneity involved. There is a genuine sense of camaraderie among participants, and that is perhaps why it all matters.

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The American Library Association’s Center for the Future of Libraries

More examples, resources, and discussions on the topic of libraries and the maker movement are available on the ALA’s Center for the Future of Libraries website, at <http://www.ala.org/tools/future/trends/makers>.