

# INFO 200 Blog 05: Teaching and Learning in Libraries, Makerspace Edition

📅 November 16, 2019 (<https://ischoolblogs.sjsu.edu/info/musick/2019/11/16/info-200-blog-05-teaching-and-learning-in-libraries-makerspace-edition/>) 🧑 Dani Musick (<https://ischoolblogs.sjsu.edu/info/musick/author/djmusick/>)

Just anecdotally, the maker movement has become a trend, and many libraries seem to have invested in that trend. A search for “makerspaces” in the LIS Source database returns 449 results between 2012 and 2019, 215 of which are considered scholarly. At least a handful of those papers haven’t even been formally published yet (and, I was dismayed to learn, are not yet accessible to read).

Makerspaces have popped up in communities as independent organizations, but they have also infiltrated public, school, and academic libraries. UC Irvine had an open maker lab in the school of engineering when I was a student there just a few years ago. It was mindblowing to me (perhaps because I was not an engineering student) that the tools in that lab were freely available to anyone who just wandered in—no fees, no supervision. I am currently volunteering with a makerspace in a public library that has 3D printers (among other maker tools and programming) freely available to library users. School librarians are working to promote access to STEAM technologies and tools, and proponents of the maker movement—like the Nerdy Teacher (<http://www.thenerdyteacher.com/>)—are collaborating to bring that access into classrooms and curriculum.

Williams and Willett (2017) argue that the role of librarians is being redefined in part due to the maker movement. They discuss the tension between library-as-book-space and library-as-program-space, including how the maker movement has reignited that tension to some degree. One of the interviewees in the study describes hands-on learning as parallel to book learning, justifying its presence in the library as a space designated for learning. Expanding the definition of learning in this way increases the library’s relevance and inclusiveness.

In particular, maker programming and services can support library users in technical and vocational fields, as well as youth interested in technical work. Leah Hamilton of Phelps Library and STEAM Lab Makerspace (<https://www.phelpslibrary.org/steam-lab>) is working to fill the need for workforce readiness in libraries (SmarterLocalGov, 2019). She works to align the library’s STEAM programming with school curriculum, train teachers on STEAM integration, develop workforce literacy in her region, and increase accessibility to educational and career opportunities for job seekers. Even in the education world, project-based learning (<https://www.pblworks.org/what-is-pbl>) is a developing trend where students create hands-on, meaningful projects that demonstrate their understanding of curriculum in lieu of taking tests (PBLWorks).

Hamilton also addresses the stigma associated with vocational and technical alternatives to university. Students get so caught up in the expectation of college attendance that they won’t even tour the campuses for technical facilities (SmarterLocalGov, 2019). That stigma starts in schools. Even at the school where I teach—where we have some pretty stellar opportunities for students to learn welding, engineering, computer science, and agriculture—our administration emphasizes AP classes and the AVID program in a massive push to send as many students as possible straight to 4-year universities. There is certainly a need for making these programs more accessible to underrepresented students, but Hamilton argues that the perceived connection between success and college attendance needs to be reevaluated.

This is not to say that makerspaces and college are mutually exclusive. There are many professions that make use of both advanced education and technical experience. It is important for libraries to make both of these things as available to users as possible, and with the recent maker movement spotlighting technical and hands-on learning, libraries have moved to incorporate maker specific programs and services. Libraries have developed youth challenges, summer camps, kits, and other STEAM programming as well as open maker labs to increase access to hands-on learning (Breeding, 2019). Hamilton’s library makerspace is available for—and used by—both youth and adults (SmarterLocalGov, 2019).

The maker movement may be a trend, but the value of learning through play and creation will not dissipate. Libraries are fulfilling their role as learning centers by creating space and giving access to tools for making and exploring STEAM technologies.

## References

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Hamilton’s library sounds very cool. I remember going to the SF Exploratorium and interacting with all of those science exhibits as a kid, it definitely left an impression. It is cool to hear about these makerspaces and interactive opportunities for young people at the library.

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The Exploratorium was the ultimate field trip when I was a kid. I remember getting to visit the museum and play with their exhibits, then begging my parents for months to bring me back. It’s been fascinating to see makerspaces develop to make that sort of exploratory learning (and the technologies and tools that go with it) more available to people.

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Hopefully this trend will stick around in libraries, though it will probably evolve along with new technology. I followed the link to the Phelps Library STEAM Lab Makerspace and got pretty psyched reading the list of gadgets and tools!

I agree with you and Hamilton about the issue of stigma with vocational schools. Many people feel compelled to attend college, even if they are not yet sure what they want to do, and end up in tremendous debt. I can see how the hands-on education from makerspaces might encourage those with the interest and skills for vocational school to pursue that route.

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The hands-on education from makerspaces might also help younger students figure out what they want to pursue in college. I know if I had had better access to the technology and education that current makerspaces offer, I might have gone down a completely different career path than what I chose. My only inklings of what I wanted to study in college were based on very limited exposure to the professions of the adults in my life. A makerspace would have allowed me to explore my own interests and tinker with new technologies before making any decisions.

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Williams and Willett's article looks spot on for the focus of this post and for the research paper.

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