MAKERSPACES TAKE LIBRARIES BY STORM

By Tracey Wong

REINVENTING OURSELVES
Naysayers will inform you that libraries are antiquated and unnecessary. They will tell you the web is the information highway, people are using e-readers, and the youth no longer turns to print books or libraries for information. But now more than ever, libraries are an integral part of our culture, our learning, and our future. Libraries are reinventing the way society views them, the way patrons frequent them, and the way people learn. Engineers, educational gurus, scientists, and library media specialists are writing, blogging, tweeting, and creating online posts about Maker Faires, makerspaces, and making—a growing international phenomenon.

TINKERING WITH TECHNOLOGY IN MAKERSPACES
According to Andrew Schrock, Ph.D. candidate at the Annenberg School for Communication and Journalism at the University of Southern California, makerspaces—also known as hackerspaces—are “place-based collectives where individuals learn through socialization, tinker with technology, develop skills, and pool technical resources.” Makerspaces provide space and opportunity for the inquisitive to explore, learn, and further develop themselves creatively around projects that are self-generated. Making can be shaped by an individual’s creative interests and goals or guided by educational purposes.

Originally an offshoot of MIT researchers, making has early roots and a foundation in 3D printing that was developed in the 1980s (Barnett). Gradually, 3D printing has begun to revolutionize everything from medical devices with less clunky artificial limbs to designs and manufacturing with more fluid, natural curves and lines.

Maker Faires are workshops and showcases, originally promoted by Maker magazine to celebrate innovation, creation, and participatory learning. Makerspaces are becoming a natural extension of libraries; people frequent libraries in order to read in greater detail or learn how to do something.

SOCIAL TRANSFORMATION IN THE LIBRARY
Libraries have traditionally been a place for social transformation. They provide open access and equalize the playing field. Libraries are where the underprivileged, poor, or the uninformed can go to get information on policies, procedures, government applications, and access to computers or technology that you can’t get anywhere else. Libraries provide access to people of diverse dispositions, classes, and teaching. As a one stop location that can offer so much to so many, a library is a natural place for makerspace as it fosters connections, collaboration, and community (Reeder).

Google, being at the forefront of experimental exploration and innovation, instituted an online summer maker camp. Google Maker Camp provided parents with the motivation to nurture DIY (do it yourself) children who learn to explore and let their imagination take command. Making can be done in any traditional form, like electronic mechanisms or handicrafts. Making can also take shape through scientific, technological, or digital projects. The concept of the maker culture is transitioning into independent pop-ups, classrooms, and libraries.

WHAT HAPPENS IN A MAKERSPACE?
As a continuation of the Westport Maker Faire, the Westport Public Library has recently and permanently instituted a makerspace featuring resident maker Joseph Schott, who is in the process of building airplanes in the library’s makerspace. Library patrons are able to view or participate in the making process. One patron actually used the 3D printer to create a tool that would speed up the making of the airplanes. As makerspaces develop, makers are partaking in a participatory learning culture where collaboration is the foundation of the community. Makers learn not only by doing, generating, and creating, but also by interacting and collaborating with others.

Similarly in upstate New York, Lauren Britton Smedley, executive director of the Fayetteville Free Public Library, articulates the role of
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Makerspaces in libraries. Their makerspace, known as the Fab Lab, has monthly open houses where library patrons are introduced to the concepts of Maker Faire and DIY. Mobile carts and furnishings allow 3D printers and other technology to reach large numbers of participants. The open houses are presented as an opportunity to play, innovate, and experiment. In close proximity to Syracuse University, the Fab Lab collaborates with the university’s staff and students from the information science and library departments.

In school libraries, makerspaces are also taking form. Buffy Hamilton, the Unquiet Librarian, has instituted a creative writing makerspace in the high school setting. In Los Angeles, nonprofit organization GameDesk has created a school within a school. A group of thirty-eight elementary students will be immersed in STEM learning as they follow personalized curricula. In addition, the MacArthur Foundation has established YouMedia, a digital media learning initiative that encourages “geeking out.”

A COLLABORATIVE, PARTICIPATORY CULTURE
Libraries are the embodiment of learning in a collaborative community. School libraries further foster that love of learning in an academic environment. In order to free society from the cycle of just consuming, creators are needed. Makerspaces provide libraries with the opportunities to create, experiment, and acquire or perfect new skills. In school libraries, the process of making demonstrates desired outcomes for 21st century learners and for learning as an overall process. Makers are able to contribute, communicate, and collaborate as they connect, curate, and create. Makerspaces adapt with a constantly changing world and are at the forefront of a new culture of participatory learning. Makers are utilizing analytical and critical thinking abilities and dispositions in line with Common Core State Standards as they further develop skills necessary for succeeding in the 21st century. All school libraries should consider having a makerspace where students can let projects take form from their interests and curiosity. Projects can be as simple as creative writing workshops or involve being given the opportunity to tinker or play with LEDs, electric switches, and other STEM-related devices.

In makerspaces, students develop various degrees of expertise as they confront multi-faceted challenges. Makerspaces help cultivate creative interests, imagination, and passion by allowing students to draw upon multiple intelligences. They are an effective means of applying knowledge, and they tap new resources for learning. Makerspaces embrace tinkering, or playing, in various forms of exploration, experimentation and engagement, and foster peer interactions as well as the interests of a collective team. Students are able to learn more effectively by playing, interacting, and innovating through challenges as they are complete projects.

Resources and Works Cited


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