Libraries and Makerspaces

Rachel Suntop

The purpose of this independent study is to explore a relatively new phenomenon in libraries: that of the Makerspace. Makerspaces have appeared in libraries worldwide and have provided participants new innovative environments to learn, create and communicate. I will be studying various aspects of Makerspaces in libraries as is outlined in my syllabus. Makerspaces also appear independent of libraries, but I will strongly emphasize those that are affiliated with libraries. Because there is some overlap with Makerspaces, Fab Labs, Innovation spaces and Hackerspaces, I will be addressing all of them, but concentrating my research in Makerspaces. As this is an emerging field, there is limited academic research, although more is coming out at a rapid rate. Therefore, some of the material that I will be researching will be evolving throughout the semester and incorporate magazine articles, books, videos and other on-line resources in addition to the academic literature. Professor Emily Knox will be my advisor for this independent study. I will be meeting with her monthly to discuss my research and to gather feedback.

I have outlined my plans for my independent study in my syllabus. Each week, I will be studying a different topic related to Makerspaces and reading articles and resources that I have chosen. I will write a weekly short summary of what I have learned each week. Those summaries will be relatively brief (approximately half a page) and somewhat informal. I will choose two topics to write more elaborate and formal research papers.

The final products from my research will be presented in several formats. First, I have created my own syllabus for this independent study that can be used as a template for future courses in this area of librarianship. The syllabus will be evolving throughout the semester and is subject to change. I will write about two topics in greater depth, conducting additional research. These 1-2 page papers will include some of my own reflections as well. I will also create a visual portfolio that will incorporate some of my research. Lastly, I will conduct an interview with an individual who is involved with library Makerspaces. I will then write a short reflection paper summarizing my encounter. Each of these assignments will have a timeline and will be due by the date indicated by my syllabus.

A New Direction for Libraries: the Makerspace

Spring 2015

Rachel Suntop

 **Week 1: January 19-25**

**Topic: Introduction to Library Makerspaces: History of Makerspaces and the Maker Movement**

* Abram, S. (2013). Makerspaces in libraries, education and beyond. Internet@schools, 20(2)
* Burke, J. (2014). Chapter 1- chapter 3. Makerspaces: A practical guide for librarians (pp. 1-33) Rowman & Littlefield Publishers.
* Chapters 1-2. (2013). Makerspace playbook (School Edition ed., pp. 1-8) Maker Media.
* Cole, I. (). The maker movement. Retrieved from <http://www.raisinggeeks.com/blog/maker-movement/>
* Dougherty, D. (2012). The maker movement. *Innovations*, 7(3), 11-14.
* Manufacturing Makerspaces. (2013). American Libraries, 44(1/2), 44.
* Morozov, E. (2014). Making it. *The New Yorker.*
* P2P foundation. (2014). Maker movement. Retrieved from <http://p2pfoundation.net/Maker_Movement>
* Pritchard, S. M. (2014). Building institutions of knowledge: Librarianship as a maker-space. Portal: Libraries and the Academy, 14(4), 471.

**Week 2: January 26- February 1**

**Topic: Introduction to Library Makerspaces part 2**

* Abram, S. (2013). Makerspaces in libraries, education, and beyond.*Internet@schools, 20*(2), 18.
* Barniskis, S. (2014). Makerspaces and teaching artists.*Teaching Artist Journal, 12*(1), 6-14.
* Burke, J. (2014). Chapters 4-5. *Makerspaces: A practical guide for librarians* (pp. 33-65) Rowman & Littlefield.
* Kurti, R.S., Kurti, D.D., & Fleming, L.I. (2014). The environment and tools of great educational makerspaces.*Teacher Librarian, 42*(1), 8.
* Maker Media. (2013). Chapter 5-6. *Makerspace playbook* (School Edition ed., pp. 17-26)
* Mallon, M. (2014). Maker mania.*Public Services Quarterly, 10*(2), 115

**Week 3: February 2-8**

**Topic: Construction and planning of Makerspaces**

* Good, T. (2013). Three makerspace models that work.*American Libraries, 44*(1/2)
* Kemp, A. (2013). 1: Making the space. *The makerspace workbench: Tools, technologies, and techniques for making* (pp. 1-21)
* Maker Media. (2013). Chapter 3-4. *Makerspace playbook* (School Edition ed., pp. 11-17)
* Plemmons, A. (2014). Building a culture of creation.*Teacher Librarian, 41*(5)

**Week 4: February 9-15**

**Topic: Makerspaces in public libraries and some public library profiles**

* Bagley, C. (2014). Carnegie public Library. *Makerspaces: Top trailblazing projects* (pp. 37-45)
* Makerspace: Is it right for your library. Carterette Series Webinars (Director). (2014).[Video/DVD]
* Lee, M. (2014, The library of the century Design4Impact. *Libraryjournal.*
* Libraryasincubatorproject. (2012, ). The labs @ Carnegie Library of Pittsburgh Public Launch Party. Retrieved from <http://www.libraryasincubatorproject.org/?p=6653>
* Libraryasincubatorproject. (2012). The Oh-So Fabulous Lab at the Fayetteville Free Library. Retrieved from <http://www.libraryasincubatorproject.org/?p=3335>
* Libraryasincubatorproject. (2014). The big draw: Artists unite in the bubbler @ madison public library. Retrieved from <http://www.libraryasincubatorproject.org/?p=15410>
* Libraryasincubatorproject. (2014). Maker jawn at the free library of Philadelphia: Developing a maker program. Retrieved from <http://www.libraryasincubatorproject.org/?p=12998>
* Madison Public Library. (2014). Bubbler. learn. share. create. Retrieved from <http://madisonbubbler.org/>
* Pongan, L. (2013). The Bubbler, a New Madison Public Library Program, finds innovative ways to connect creative types. *Isthmus.*

**Week 5: February 16-22**

**Topic: Makerspaces in academic libraries**

* Bagley, C. (2014). Georgia institute of technology. *Makerspaces: Top trailblazing projects* (pp. 56-64)
* Bagley, C. (2014). Valdosta State University, Odom library. *Makerspaces: Top trailblazing projects* (pp. 93-104)
* Fisher, E. (2012). Makerspaces move into academic libraries. Retrieved from <http://acrl.ala.org/techconnect/?p=2340>
* Good, T. (2014). Making a maker campus. *Make.*
* Kurt, L. (2012). 3D printers in the library: Toward a FabLab in the academic library. Retrieved from <http://acrl.ala.org/techconnect/?p=1403>
* Pryor, S. (2014). Implementing a 3D printing service in an academic Library. *Journal of Library Administration*, 54(1), 1-10.
* Wolterbeek, M. (2012). DeLaMare Science and Engineering Library First in Nation to Offer 3D Printing Campuswide. *Nevada Today.*

**Week 6: February 23-March 1**

**Topic: School library Makerspaces**

* Bagley, C. (2014). Michigan makers group. *Makerspaces: Top trailblazing projects* (pp. 73-82)
* Canino-Fluit, A. (2014). School library makerspaces: Making it up as I go. *Teacher Librarian*, 41(5), 21-28.
* Chapter 11: Snapshots. (2013). *Makerspace Playbook* (School Edition ed., pp. 49-56)
* Preddy, L. (2013). Chapter 1: The school library makerspace. *School library makerspaces: Grades 6-12* (pp. 1-16)

**Week 7: March 2-8**

**Topic: Users of Makerspaces: Children, teens and adults**

* Batykefer, E. (2013). The youth maker library.*Voice of Youth Advocates, 36*(3), 20-24.
* Burke, J. (2014). Chapter 11. *Makerspaces: A practical guide for librarians* (pp. 145-154) Rowman & Litlefield.
* Doctorow, C. (2013). Libraries, hackerspaces and E-waste: How libraries can be the hub of a young maker revoluation. Retrieved from [http://www.raincoast.com/blog/details/guest-post-cory-doctorow-for-freedom-to-read-week/](http://www.raincoast.com/blog/details/guest-post-cory-doctorow-for-freedom-to-read-week/%22%20%5Ct%20%22_blank)
* Everybody in: Diversity in making. (2013). Retrieved from [http://makerbridge.si.umich.edu/blog/141013-821](http://makerbridge.si.umich.edu/blog/141013-821%22%20%5Ct%20%22_blank)
* Toombs, A., Bardzell, S, and Bardzell, J. Becoming makers: Hackerspace member habits, values, and identities.*Journal of Peer Production,*(5), January 15, 2015.

**Week 8: March 9-15**

**Topic: Job and Internship Opportunties in Makerspaces**

* Chapter 12. (2013). *Makerspace playbook* (School ed., pp. 60-65)
* Dougherty, D. (2013, ). Making jobs. Retrieved from [http://makezine.com/2013/03/25/making-jobs/](http://makezine.com/2013/03/25/making-jobs/%22%20%5Ct%20%22_blank)
* Mathias, M. (2012, ). Making as a job creator. Retrieved from [http://makezine.com/2012/11/28/making-as-a-job-creator/](http://makezine.com/2012/11/28/making-as-a-job-creator/%22%20%5Ct%20%22_blank)
* FACT SHEET: President obama to host first-ever white house maker faire. (2014). Retrieved from [http://www.whitehouse.gov/the-press-office/2014/06/18/fact-sheet-president-obama-host-first-ever-white-house-maker-faire](http://www.whitehouse.gov/the-press-office/2014/06/18/fact-sheet-president-obama-host-first-ever-white-house-maker-faire%22%20%5Ct%20%22_blank)

**Week 9: March 16-22**

**Topic: Library Makerspace Tools, Activities and Technologies**

* Chapter 3: Tools & materials. (2013). *Makerspace playbook* (School ed., pp. 11-17)
* Colegrove, P. (2014). Making it real: 3D printing as a library service.*Educause Review Online.*
* *Webinar: 3D printing in libraries.*Ginsberg, S. (Director). ().[Video/DVD]
* Pryor, S. (2014). Implementing a 3D printing service in an academic library.*Journal of Library Administration, 54*(1), 1-10.

**Week 10: March 23-29**

**Spring Break!**

**Week 11: March 30-April 5**

**Topic: Textiles in Makerspaces**

* Carmody, T. (2012). How flora makes "wearable computing" fun and fashion-forward.*Wired.*
* Kafai, Y., & et al. (2014). A crafts-oriented approach to computing in high school: Introducing computational concepts, practices and perspectives with e-textiles.*Transactions on Computing Education, 14*(1), 1-20.
* Kafai, Y., Fields, D., & and Searle, K. (2014). Electronic textiles as disruptive designs: Supporting and challenging maker activities in schools.*Harvard Educational Review, 84*(4), 532-556.
* Peppler, K. (2013). STEAM-powered computing education: Using E-textiles to integrate the arts and STEM.*Computer, 46*(9), 38-43.

**Week 12: April 6-12**

**Topic: Ethical issues and challenges with Makerspaces**

* Bagley, C. (2014). About makerspaces: Concerns and considerations. *Makerspaces: Top trailblazing projects* (pp. 1-17)
* Brady, T., et al. (2014). *Public Library Quarterly, 33*(4), 330-347.
* Gutsche, B. (2013). Makerspaces in libraries: Patron's delight, staff's dread?*Alki, 29*(1), 28-30.

**Week 13: April 13-19**

**Topic: Feminist Hackerspaces and Gender issues in Makerspaces**

* catherinebaxtertechbridge. (2014). How to make a female maker.*Make.*
* georgiaguthrie. (2014). Where are the women in makerspaces?*Make.*
* Henry, L. (2014). The rise of feminist hackerspaces and how to make your own.*Model View Culture.*
* Norris, A. (2014). Make-her-spaces as hybrid places: Designing and resisting self constructions in urban classrooms.*Equity & Excellence in Education, 47*(1), 63-77.
* Toupin, S.Feminist hackerspaces as safer spaces?*.Dpi Feminist Journal of Art and Digital Culture,*(27)
* Toupin, S. (2014). Feminist hackerspaces: The synthesis of feminist and hacker cultures.*Journal of Peer Production,*(5)

**Week 14: April 20-26**

**Topic: International Library Makerspaces**

* *Making living sharing-a FabLab world tour documentary.*DyvikDesign (Director). (2013).[Video/DVD]
* France, A. K. (2014). Fab labs @ 10.*Make.*
* Kohtala, C., & Bosque, C. The story of MIT-FabLab Norway: Community embedding of peer production.*Journal of Peer Production,*(5)
* Maldini, I. (2013). *The FabLab Amsterdam users: A survey on their profile and activity.* (). Amsterdam:
* Slatter, D. (2013). A place to make, hack, and learn: Makerspaces in Australian public libraries.*Australian Library Journal, 62*(4)

**Week 15: April 27-May 3**

**Topic: Local Makerspaces and Resources**

* Bagley, C. (2014). Urbana free library. *Makerspaces: Top trailblazing projects* (pp. 83-92)
* Lee, J. (2014). Where ideas become reality: Fab Lab.*Smile Politely.*
* Stoll, C. (2013). Makerspaces: Surveying the scene in Illinois.*ILA Reporter, 31*(2)

**Week 16: May 4-10**

**Topic: the Future of Library Makerspaces/ Digital and online Makerspaces**

* Burke, J. (2014). Chapter 12: Remaking the library? Tracking the present and future of making in libraries. *Makerspaces: A practical guide for librarians* (pp. 155-164)
* Carruthers, A. (2014). Bigger than our buildings: The exciting potential of online makerspaces.*Feliciter, 60*(1), 18-20.
* Enis, M. (2012). To remain relevant, libraries should help patrons create.*Library Journal.*
* Libraryasincubatorproject. (2014). Mobile makerspace at arrowhead library system. Retrieved from [http://www.libraryasincubatorproject.org/?p=14326](http://www.libraryasincubatorproject.org/?p=14326" \t "_blank)
* Mitchell, J. (2014). Beyond the maker space: Backtalk.*Library Journal.*
* Norman, M. (2012). Frail, fatal, fundamental: The future of public libraries.*Public Library Quarterly, 31*(4), 339-351.

**Week 17 (finals): May 11-17**

**Assignments**

* Due: ongoing. Work on revising syllabus and provide citations.
* Due: weekly. Write 1-2 paragraphs summarizing the main points of each subject of the week.
* Due Week 5: Conduct a short interview with an individual who works at a Makerspace (preferably a library Makerspace) and ask them questions in areas that you would like to know more about. After the interview, write a short paper reflecting what you have learned.
* Due Week 8: write a short reflection paper about the topic of your choosing. This paper should be 1-2 pages long. Use the resources provided for that week, but also find additional resources. The paper should summarize the various resources plus incorporate your own observations and thoughts.
* Due Week 12: write a second reflection paper using the guidelines above, but on a different subject.
* Due Week 17: Design a visual portfolio about library Makerspaces. This can be done through a small website, a poster or another creative venue. Make sure to choose a particular topic and be specific as to what it's about.

**Additional resources:**

**Books**

* The Makerspace Workbench: [http://proquest.safaribooksonline.com.proxy2.library.illinois.edu/9781449355661](http://proquest.safaribooksonline.com.proxy2.library.illinois.edu/9781449355661%22%20%5Ct%20%22_blank)
* "School Library Makerspaces: grades 6-12" by Leslie B. Preddy
* Online: "Makerspaces: Top Trailblazing Projects" by Caitlin A. Bagley
* Online: "Makerspaces: a practical guide for librarians" [http://vufind.carli.illinois.edu/vf-uiu/Record/uiu\_7569896](http://vufind.carli.illinois.edu/vf-uiu/Record/uiu_7569896%22%20%5Ct%20%22_blank)
* Makerspace Playbook: [http://makered.org/wp-content/uploads/2014/09/Makerspace-Playbook-Feb-2013.pdf](http://makered.org/wp-content/uploads/2014/09/Makerspace-Playbook-Feb-2013.pdf%22%20%5Ct%20%22_blank)
* Makerspaces (21st Century Skills Innovation Library: Makers as Innovators) by Samantha RoSlund

**Pinterest**

* [http://www.pinterest.com/gkeramas/makerspace/](http://www.pinterest.com/gkeramas/makerspace/%22%20%5Ct%20%22_blank)
* [http://youthserviceslibrarianship.wikispaces.com/Makerspaces](http://youthserviceslibrarianship.wikispaces.com/Makerspaces%22%20%5Ct%20%22_blank)

**Videos**

* [https://www.youtube.com/watch?v=WV\_Eu5Kz1cA](https://www.youtube.com/watch?v=WV_Eu5Kz1cA" \t "_blank)
* [https://www.youtube.com/watch?v=pACCt-K-67I](https://www.youtube.com/watch?v=pACCt-K-67I" \t "_blank)
* [https://www.youtube.com/watch?v=TU1DnGtjYt0](https://www.youtube.com/watch?v=TU1DnGtjYt0" \t "_blank)
* [https://www.youtube.com/watch?v=sMhFSn2teKE](https://www.youtube.com/watch?v=sMhFSn2teKE" \t "_blank)

**Sites and blogs**

* [http://librarymakers.blogspot.com/](http://librarymakers.blogspot.com/%22%20%5Ct%20%22_blank)
* [http://library-maker-culture.weebly.com/makerspaces-in-libraries.html](http://library-maker-culture.weebly.com/makerspaces-in-libraries.html%22%20%5Ct%20%22_blank)
* <http://www.urbanlibraries.org/-makerspaces-in-libraries-pages-338.php>
* <http://makezine.com/magazine/make-40/most-interesting-makerspaces-in-america/>