4. Facilitating Knowledge Creation: Expect to Create

It was an unusually warm winter in Syracuse. Still, it was quite cold as I made my way with my two boys, Riley (then age 11) and Andrew (then age 8), to the Fayetteville Free Library. Fayetteville is an affluent suburb of Syracuse, and the Free Library is an award-winning library located in the former Stickley Furniture factory. The boys and I were on our way to meet with Lauren Britton, a librarian at Fayetteville. She was going to show us how 3D printing worked.

A few months earlier, Sue Considine, the director of the Fayetteville Free Library, had announced to great fanfare the creation of a Fab Lab at the Library. Community members would be able to work with 3D printers and, eventually, other computer-aided manufacturing equipment. Lauren Britton had dreamed up the idea while a graduate student studying librarianship, and she and Sue were now making it a reality.

For my visit, Lauren had set up the 3D printer, a MakerBot Thing-o-Matic,[65] in the community room. It is a rather awkward looking box, about 2 feet in all dimensions. The MakerBot is not a high-end 3D printer—those sell for hundreds of thousands of dollars and are used by specialized manufacturers around the world. The MakerBot is an open source machine

[65] http://www.makerbot.com (accessed December 2, 2015)

that costs less than $2,000 and has grown quite a fan base amongst the "Maker" community. Connected to the printer was a laptop.

Over the next hour, she walked my boys and me through how the printer worked. We could come up with our own design or download something to print from thousands of premade models available through the web. We started with a ring. A simple ring that Andrew would later take into his third-grade classroom bragging about how he made it at the library. Riley printed out a robot.

While this MakerBot was limited to printing items that can fit into a cube about 10 centimeters to a side, it showed an amazing potential of what was to come. Imagine if the next time you needed a part, or had an idea for a new gadget, or even wanted to create a replica of your favorite statue,[66] you simply printed them out. Not good at 3D design? Simply take a few pictures of a 3D object,[67] or spin it in front of your Xbox Kinect,[68] and send the resulting model to the printer. This is not science fiction; it is happening right now.

While it may not be science fiction, the question for us to ask is: why is it in a library? This is not a rhetorical question either. It is one that was asked by the Fayetteville Free Library Board of Trustees, some librarians at the library, and a ton of Internet readers when the announcement of the Fab Lab made the rounds on tech sites.

Rather than jump into that answer, I would like to broaden the question even further. After all, I just spent a chapter saying that libraries are not about books—so are they about Fab Labs? If we should no longer limit our definition of the library to collections and materials, how do we define a library? If I should expect more than book warehouses from my library, what should I expect? What does a library do?

Library as Facilitator

In a word, what libraries and librarians do is facilitate.

I realize to some that might seem anticlimactic. Revolutions in Egypt, Fab Labs, and being a beacon of community aspirations seem to call for a stronger word, like "empower," "advocacy," or "inspire." And libraries should do all of these. Recall that facilitation is only one part of the larger mission to "improve society through facilitating knowledge creation in their communities." The word improve is key. Improve is active. This means that facilitation is also active. To facilitate is not to sit back and wait to be

[66] http://gizmodo.com/5888230/the-smithsonian-turns-to-3d-printing-to-share-their-collection (accessed May 8, 2012)
[67] http://www.123dapp.com/catch (accessed May 8, 2012)
[68] Zollhöfer, M., Martinek, M., Greiner, G., Stamminger, M., Süßmuth, J. [leresistant] (2011, February 9). *3D face scanning with Kinect* [video file]. Retrieved from http://www.youtube.com/watch?v=llNSQ2u2rT4&feature=related

asked…no one ever changed the world waiting to be asked. No, you should expect the facilitation of librarians and libraries to be proactive, collaborative, and transformational. Libraries and librarians facilitate knowledge creation, working to make you and your community smarter.

They do this in four ways. Libraries:

1. Provide access
2. Provide training
3. Provide a safe environment
4. Build on your motivation to learn

I alluded to at least some of these when talking about libraries as safety nets. Each one of these means of facilitation can be seen as a sort of divide that must be bridged in order to learn. You have to have access to knowledge. Once you have access, you have to understand how to use it. Once you can use it, you must feel safe using it. Lastly, even if you have access and knowledge, and feel safe, you have to want to use the knowledge.

All libraries do the first aspect of facilitation, providing access. All libraries seek to do all four, at least nominally. Where too many libraries fall short is in how they: see knowledge as a thing, overemphasize access, and support consuming knowledge instead of creating it. If our libraries are going to support our communities in the future, they must do a better job across this spectrum.

What is Knowledge?

It would be easy to take those means of facilitation and add "books" or "databases" or any form of stuff to the end. For example, provide access to books/databases/materials. Too many libraries do this. However, that is not what I mean. I mean providing access to ***knowledge***, and that is a very different beast than resources, books, and articles.

Here is what knowledge is not: it is not a passive and calm accumulation of facts. It is not a database of articles, or, indeed, a building full of books. It is not measured in pounds or linear feet. Knowledge is not static, not dispassionate, and definitely not cold.

Knowledge is something innately human and intimately tied to the passions of the individual. Knowledge is dynamic, ever changing, and alive. Knowledge drives us to question the world, to question each other, and to question the nature of reality. Knowledge is a force that drives economies, drives art, and should drive librarians to service. Knowledge is constructed in our libraries, our universities, our homes, our bars, and our cars. Knowledge is ultimately the way in which we see the world, and knowledge determines how we act.

The view of knowledge as dynamic and constructed is important when you talk about expecting more from libraries. Put simply, if you see knowledge as contained in books (and databases, and articles), then you facilitate the creation of new knowledge by collecting books and making them easy to get to. However, if you see knowledge as something more dynamic, and ultimately constructed by the individual and community, you need to radically change what a library does—you need to see the library as an active learning space.

This dynamic view of knowledge and learning is changing how we teach children in schools. Gone are the days when the "sage on the stage" model of learning was seen as the best form of curriculum delivery. Now, students co-create knowledge, get hands-on experience, and work on projects. We also see this in industry and military training. Hour-long PowerPoint sessions are being replaced with simulations and games. Cognitive and learning sciences are showing us that people are not empty buckets waiting for some skilled orator to fill them with knowledge. Rather, learners are active, constantly relating new ideas and facts to what they already know. The sage on the stage has been replaced by the guide on the side. Our libraries must go through this transition as well.

This new understanding of knowledge as actively constructed is perhaps the biggest expectation change we need to make in order to get the libraries we deserve. If I am to increase my knowledge, the library must allow me to do so actively. Certainly, in some cases reading about something is enough, but in many more cases you need to practice, and try, and explore to learn.

Buffy Hamilton, the librarian at the "Unquiet Library" in Creekview High School in Canton, Georgia (outside of Atlanta), knows this. Buffy doesn't spend much time organizing and shelving books. She is busy co-teaching projects like Media 21 that she describes this way:

> *"The school librarian and sophomore English teacher collaborated to create a semester-long participatory learning experience using social media and cloud computing to cultivate collective knowledge building and inquiry. Using tools ranging from Netvibes to Evernote to Google Sites, students blogged, contributed to group wikis, used social bookmarking, developed learning/research portfolios and presented learnings in a way that demonstrated an ethical use of information and licensed media. The program also was evaluated in terms of meeting Georgia Performance Standards and the American Association of School Librarian's Standards for 21st Century Learners."*[69]

And Buffy is hardly alone. Sue Kowalski is the librarian at Pine Grove Middle School in East Syracuse, New York. In 2011 her library was named National School Library Program of the Year by the American Association of

[69] http://theunquietlibrarian.wordpress.com/2011/01/05/ala-oitp-recognizes-the-unquiet-library-and-media-21-for-cutting-edge-technologies-in-library-services/ (accessed December 4, 2015)

School Librarians. Why? Not because of its collection or its architecture, but because of the learning students are doing and how that learning is tied into every corner of the school. Sue doesn't shelve books. Instead, she has created an "iTeam" of students who take care of the collection—and learn, and teach new technologies, and troubleshoot technologies for the teachers, and even organize events in and outside of the library.

How do good school librarians—the kind of school librarians you should expect to find in your school—connect and improve learning? Joyce Valenza is the librarian for Springfield Township High School outside of Philadelphia. She has developed a whole manifesto[70] on the topic. What should you expect from a school librarian in terms of reading?

- *You consider new ways to promote reading. You are piloting/supplying learners with downloadable audio books, Playaways, Kindles, iPads, Nooks.*
- *You share ebook apps with students for their iPhones, droids, and iPads and other mobile devices (Check out Gale's AccessMyLibrary, School Edition)*
- *You market, and your students share, books using social networking tools like Shelfari, Good Reads, or LibraryThing.*
- *Your students blog or tweet or network in some way about what they are reading*
- *Your desktop screensavers promote great reads, not Dell or Apple or HP.*
- *You link to available free ebook collections using such tools as Google Books, International Children's Digital Library (See ebook pathfinder.)*
- *You review and promote books in your own blogs and wikis and other websites. (Also Reading2.0 and BookLeads Wiki for book promotion ideas)*
- *You embed ebooks on your websites to encourage reading and support learning*
- *You work together with learners to create and share digital booktalks or book trailers.*

In terms of communication and publishing?

- *You know that communication is the end-product of research and you teach learners how to communicate and participate creatively and engagingly. You consider new interactive and engaging communication tools for student projects.*
- *Include and collaborate with your learners. You let them in. You fill your physical and virtual space with student work, student contributions—their video productions, their original music, their art.*
- *Know and celebrate that students can now publish their written work digitally. (See these pathfinders: Digital Publishing, Digital Storytelling)*

[70] Valenza, J. (October 2012). Manifesto for 21st century teacher librarian. http://www.teacherlibrarian.com/2011/05/01/manifesto-for-21st-century-teacher-librarians/ (December 4, 2015)

Note the active and collaborative voice. If you read the whole document (which I strongly recommend), you will see that this is a very different model of learning from the sage on the stage. A good school librarian is not a clerk or limited to maintaining a collection. He or she should be an active partner in learning. A good school librarian is a teacher who helps the subject area teachers improve. This librarian—the librarian you should expect in your schools—guides students through inquiry-driven learning free from the confines and limitations of too structured, too test-driven, too one-way "teaching."

What are the benefits of having this in your school? It turns out that you get well-documented increase in retention of students and higher test scores. Studies in Alaska, Colorado, Florida, Indiana, Massachusetts, Michigan, and North Carolina all showed higher achievement on standardized tests with the presence of a certified school librarian. One Pennsylvania study found:

"The mere presence of a large collection of books, magazines, and newspapers in the school library is not enough to generate high levels of academic achievement by students. Such collections only make a positive difference when they are part of school-wide initiatives to integrate information literacy into the school's approach to standards and curricula."[71]

These increases in performance do not come from simply having a room called a library in the school building. They are not tied to the size of the collection. They come down to one variable: the presence of a qualified school librarian. However, not just any school librarians will do. They must be engaged. They must be co-teaching and working with students on learning, not just focused on the materials.

Let me put this as plainly as I can: if your school does not have a school librarian, you are at a documented risk of lower performance. You should expect more from the school. If you have a school librarian and don't know his or her name? Expect more of that librarian. If you are a teacher and don't know how the library and librarian can help you in your classroom, expect more and demand an answer to that question from the librarian. If you are a principal and see the library only as an extended study hall or as a place to sink book-buying dollars, you need to expect much ***much*** more.

Expanding the Definition of Facilitation

All this emphasis on learning may make sense in a school library, but what about other types of libraries? Let's go back to our original question:

[71] Research Foundation. (2008). School libraries work!. Retrieved from http://www.scholastic.com/content/collateral_resources/pdf/s/slw3_2008.pdf (accessed December 4, 2015)

what constitutes a library service? Let us take a look at those means of facilitation again, but this time let's add some definitions based on our more dynamic sense of knowledge.

Provide Access

The classic view of providing access is providing access to collections. This has been updated a bit to talk about access to information, but even information is often functionally defined as collections of texts, pictures, and materials either digital or print. There is a big problem with this view of access—it's one way only. In essence, too many libraries have defined access as providing access to their stuff. You must expect more from your library. You need to expect it to provide a platform where you can access the ideas of others, as well as a platform for you to provide others access to your own ideas.

Joan Fry Williams, librarian and prominent library consultant, put it best when she said that libraries must move from grocery stores to kitchens. A grocery store is where you go to consume—to buy ingredients for your meals. A kitchen, however, is where you go to combine these ingredients with your own skills and talents to make a meal. Kitchens tend to be social spaces, the place where everyone ends up at a party because it is the place where there is action occurring. Libraries need to be kitchens—active social places where you mix a rich set of ingredients (information, resources, talents) into an exciting new recipe that can then be shared.

This is what Joyce Valenza was discussing in her manifesto when she talked about things like students publishing their stories and collaborating with teachers and peers. Her library provided access not simply to materials, but to peers, teachers, community ideas, and tools like video cameras, laptops, social media websites, books, etc. Notice, however, that it was not the provision of tools that made Joyce's library a library; it was access to knowledge and the community itself. The tools of that access will change (from books to eBooks, from telephones to Skype), but the goal of access does not.

If your library is simply a place where you can go to consume—to get the publications and stuff of others—and not a place to create and to gain access to the rest of your community, you must expect more.

So how can a library facilitate knowledge creation through providing access? Well, in Fayetteville it was access to 3D printers, among other things. In academic libraries, it may be helping to organize study teams or building online communities. For example, group work is an increasing component of university-level teaching these days. Students are put into groups because the work they are being prepared for is collaborative and interdisciplinary. However, these teams are too often left to their own devices with little thought to how they can collaborate. Does the class provide access to online

tools like discussion forums, tools to collaboratively edit documents, or places to archive online materials like citations? The library can and should be providing this type of active access. The library should be a place you go, either physically or online, to help you get at ideas and to help you share your ideas with others. That is how communities learn—through collaboration and conversation.

Of course, this assumes folks know how to get online or publish their ideas…

Provide Training

There is a fabulous video on YouTube titled "Medieval Helpdesk."[72] It shows a man from tech support explaining to a medieval monk how to use a book. He goes through the basics, like how you have to open the book and then turn the pages. No, the text doesn't go away when you turn the page; it is stored. To turn off the book you simply close the cover. Like any good joke, it loses its humor when explained (go watch the video), but it does challenge the idea that we are somehow born with the knowledge of how to use books. In fact, society spends quite a huge sum of money teaching people how to use a very basic technology like books. We call it reading.

All technologies need some basic instruction in how to use them. We don't learn to read by sleeping on top of books. Access is not enough. We must expect our libraries to help prepare the community to engage in active learning.

So we now come to our second form of facilitation: providing training. Libraries should work with a community member in a learning activity specifically to allow that community member to engage in a larger conversation or larger learning activity. Many libraries do this already. In public libraries, librarians provide classes in basic computer skills and resume writing. For decades, academic libraries have been providing training in finding and using information (once referred to as bibliographic instruction—now more often simply called instruction). My favorite story about training comes from a law library.

A lawyer pops his head into the librarian's office, telling her that he has been searching all night for a piece of information on an opposing expert witness. He is due in court within the hour. Can the librarian help? Five minutes later, the librarian is printing out the needed information from LexisNexis. Now, we could stop here and have a heartwarming "librarian saves the day" story, but that is nothing new to libraries. Librarians have been providing reference services like this since the early 1900's. What makes this

[72] Norwegian Broadcasting Corporation [nrk] (2007, February 26). *Medieval helpdesk with English subtitles* [video file]. Excerpt from *Øystein og jeg* [Television series]. Retrieved from http://www.youtube.com/watch?v=pQHX-SjgQvQ (accessed on December 4, 2015)

story great comes in the realization the librarian had and what she did about it.

The lawyer was looking for information about an expert witness. Lawyers call scientists, engineers, doctors and a whole host of experts to help them make their case. If a lawyer is trying to prove a defendant insane, they call a psychiatrist. Lawyers looking to prove a chemical unsafe call a chemist, and so on. This means that the character and expertise of that witness is very important. So lawyers who call the expert want to be sure of their credentials, and the opposing counsel wants to find some piece of information that can cast doubt on those credentials. This often involves discovering the witness has changed position on a topic, or finding some piece of contradictory evidence once published.

The law librarian saw that, although lawyers are experts in the law, finding and discrediting expert witnesses is ultimately an information problem and a different skill set. Lawyers weren't experts in chemistry or psychology and didn't know how to look for individuals who were refuting information or even where that refuted information might be found. Librarians, on the other hand, do. Now here is the masterful part. The librarian didn't simply go from lawyer to lawyer telling them she could help or that she was better at finding this information. She realized nobody likes hearing they are not good at something or that they can't find everything they need through Google. So she set up a class called (I love this) "Character Assassination 101."

In the class, she talked about sources to find academic articles, how to search for scientists in a given domain, and so on. After every example, she would add "or if you are busy, I could do that for you." Her usage shot up. Lawyers now knew how to better find this information and they saw someone who understood their problems and could help. If your librarian doesn't have a clue what you do in your organization—expect more.

There are plenty of examples of great library services in training, and they are not all simply seating learners in a classroom. For example, in Delaware, the state's Division of Libraries teamed up with government offices in economic development and adult education to build training centers focused on job creation and skills development:

"This grant will make a huge difference in being able to bring much needed mobile technology to our libraries, and offer Delawareans new services that will help them get ready for jobs, find jobs and enhance their education," said Governor Jack Markell. "While our libraries do a terrific job with information, these new services will make our libraries an even more valuable resource for people trying to equip themselves for a changing job market."[73]

[73] http://governor.delaware.gov/news/2010/1009september/20100928-broadband.shtml (accessed December 4, 2015)

Just about every public library in this country provides support to job seekers. However, this is often access to online job sites and access to computers on which to write resumes and submit job applications. In Delaware, they raised the bar. It is not enough to provide access; one must instill skills and education.

You will recall the northern Illinois libraries that banded together to create Transform U from Chapter 2. These librarians created partnerships with local community colleges, state workforce offices, and local businesses to provide one-on-one help in developing interview skills. A librarian will sit down with someone to walk through a college application. Through Transform U one can easily bypass red tape to talk to social services or find an internship.

These ideas extend into academic libraries. In place of bibliographic instruction, great libraries are now introducing a suite of concierge services. At several universities, freshmen are assigned a librarian upon admission. While colleges have always provided advisors to help students navigate a course of study, the librarian advises the student on the whole college or university information environment. Librarians meet with freshmen to go over their classes and talk about what resources will be helpful in those classes. They also cover the information systems students will be encountering, from course registration to dining plans to how to send email. Librarians, who cover all the disciplines on campus, can now help students see the bigger picture.

Academic librarians should not stop there. More and more academic librarians are embedding themselves in classes and departments. Subject specialists from the library monitor Twitter feeds from classes and provide on-the-spot help. If a professor forgets a citation or a date, he or she can simply tweet out a question, and the librarian tweets back a response. Librarians now have office hours where they go into the departments and work directly with faculty on teaching and research as part of a team. They provide training not just in case a student or faculty member needs it, but at the point of need.

Some academic libraries are going beyond the concept of training, or preparing students for academic work in academic departments. Carnegie Mellon University, for example, now houses the Emerging and Integrative Media Initiative. The Initiative includes a master's degree and:

"In only one year, IDeATe is already recognized as a national model, merging technology and arts in education, research and creative practice. More than 300 students and 70 faculty from 15 different departments and schools are participating in IDeATe[74]."

The librarians at the University of Auckland launched a Massive Open Online Course (MOOC) in academic integrity[75]. This course on issues of plagiarism, and ethics in scholarship has been used by tens of thousands of college students around the globe.

If your library—public, academic, school, government, corporate, what have you—is not in the training business, or that training is not aligned to what you are doing, when you are doing it, and where, expect more.

Provide a Safe Environment

Abraham Maslow was a professor of psychology. He knew a thing or two about training and learning. He knew, for example, that the environment in which people learn matters. He created what we now call Maslow's Hierarchy.[76] The Hierarchy argues that in order to learn, you need to have some basic needs met first. For example, you are going to have a hard time learning physics if you have no food to eat or shelter to protect you from the elements. Maslow called these physiological needs. Likewise, if you have food and shelter but no sense of safety, there is no learning. Maslow called these safety needs. His hierarchy continues to a need for belonging, esteem, and, finally, self-actualization. For our purposes here, I am simplifying things and focusing on the need to feel safe.

I started this book with the Arab Spring. Many credit social networking sites like Twitter and Facebook with bringing about mass protests and change in Egypt. However, what is not talked about nearly as often is that these same tools can be used to track and suppress protests. Voice of America, for example, reports on how the government of Bahrain is using Facebook to find and arrest protestors:

"Unlike in Egypt, however, the demands of the Bahrainis were never met. The Sunni government, with military help from neighboring Gulf States, quelled the uprising and afterwards, reportedly used access to social media to help identify and punish those who spoke out."[77]

[74] http://www.cmu.edu/news/stories/archives/2015/june/keith-webster.html (accessed December 4, 2015)
[75] https://www.futurelearn.com/courses/academic-integrity (accessed December 4, 2015)
[76] http://en.wikipedia.org/wiki/Maslow's_hierarchy_of_needs (accessed December 4, 2015)
[77] http://www.voanews.com/english/news/middle-east/Facebook-Becomes-Divisive-in-Bahrain-127958073.html (accessed December 4, 2015)

Authorities from the Iranian government, to the CIA, to the San Francisco Police Department are turning to social network sites to identify potential social disruptions and stop them. Sites like Google and Twitter are adjusting policies to allow greater control by authorities. It may be that we have seen our last Facebook revolution as protestors seek the next safe haven for coordinating action. In any case, the library we want, the library you should expect is a safe place to explore dangerous ideas.

Physical Safety

Safety comes in many flavors: the two that most concern libraries are physical safety and intellectual safety. Public libraries are often cited as safe havens. Latch-key kids, for example, can go to the library and stay off the streets. This was so important to the citizens of Philadelphia that when the mayor sought to close 11 branches of the library, the citizens and city council sued in court to keep them open. While there was talk of Internet access and knowledge centers, the reason cited, overwhelmingly, was that the community wanted a safe community space for kids.

This idea of providing physical safety is not limited to public libraries. School libraries often become havens for students who don't fit into other social groups. Academic libraries are safe places for undergrads to study late into the night or even to escape harassment from dorm mates. As Maslow pointed out, the physical environment matters. So can we expect more from our libraries than a guard at the door? This question was taken on by the Central Library of Philadelphia.

The Free Library of Philadelphia's Central Library had a problem with homelessness. Every morning before the library opened, the homeless of the central city would congregate in a park in front of the grand Beaux-Arts building. Once the doors of the Library opened, the homeless would crowd in to use the bathrooms and find a place to rest. Things came to a head when a board member of the library complained about the condition of the bathrooms after attending the Library's world-class lecture series.

The librarians of the Central Library had a choice to make. How were they going to deal with the homeless? They reached out to the city and other urban libraries for advice and help. Much of the advice the librarians received had to do with keeping out the homeless: policy changes they could make, laws they could use, and so on to "minimize" the problem. The librarians of the Free Library chose a different path.

The first thing they did was to hire homeless men and women to be bathroom attendants to keep the bathrooms clean. Then the Library started a café. The café was a community-wide effort. Major funding came from Bank of America. The equipment was donated by Starbucks. The food came from a neighborhood bakery. The café was staffed, trained, and managed by formerly homeless men and women now in a program to transition to work.

This is what happens when the public, or in this case, the librarians, expect more of themselves and their community. They look at people not as problems but as community members who are in need of services, support, and literacy and, ultimately, in need of power—the power to support themselves and live dignified lives. The power to create and learn, not simply to survive. Did the Free Library of Philadelphia solve the homelessness problem in Center City Philly? No. Instead it decided not to stand by and ignore it. It did not "minimize the problem." It leveraged the power of the homeless to deal with the problem, which the librarians had previously been powerless to address.

We will return to the physical building and how it can be not only safe, but inspiring later when we talk about communities in Chapter 6. For now, let me turn to another type of safety.

Intellectual Safety

For centuries libraries have been champions of intellectual safety. Librarians long ago realized that just as you need to feel physically safe to explore and learn, so, too, must you feel safe in your thoughts. If you feel someone is censoring ideas, or watching and judging the types of information you are looking into, you will be less likely to look into controversial subjects. This "chilling effect" is roughly equivalent to that feeling you got watching R-rated movies with your parents when you were 15.

Long before Edward Snowden's revelation of wide-scale government surveillance[78], librarians were seeking to protect their communities from intrusive government. Perhaps the most extreme example of libraries as guardians of intellectual safety came in the court case Library Connection v. Gonzales. Under the Patriot Act, passed after the 9/11 terrorist strikes, the FBI could get the records of libraries and other businesses in the process of investigations. This, on its own, was not new. The FBI had always had the right to subpoena such records. What was new was that now the FBI didn't need to go to a court to get the records; it could issue so-called National Security Letters on its own. What's more, unlike with the subpoena where a library (or a video store, or a school) could challenge the request in court, the letter came with a gag order, meaning you couldn't even tell anyone you got the letter, much less challenge it. The logic behind this change was to speed investigations and prevent tipping the hand of law enforcement.

The majority of librarians did not like these provisions in the Patriot Act. Librarians had made the privacy of library user information paramount for decades, fearing a chilling effect. In other words, if library users felt that what they read or what they looked at on the Internet was being monitored, they would self-censor. Librarians hold that the best knowledge is developed from

[78] http://www.bbc.com/news/world-us-canada-23123964 (accessed December 4, 2015)

the broadest array of sources. Library users had to feel sure that what they were looking at wasn't being monitored or judged. To be clear, intellectual safety is not about having library users look only at safe information; it is about library users feeling safe to engage with very challenging ideas.

With the Patriot Act, librarians could no longer assure the community of their safety. In 2004, a Connecticut group of librarians felt that things had gone too far in the balance of civil liberties and law enforcement, and they decided to do something: they sued when they got a National Security Letter, knowing full well that they might go to jail for doing so. Apparently the courts, including the Supreme Court, agreed that the balance was out of whack. The gag order was invalidated.

I don't tell this story as some morality tale against the Patriot Act. Rather, I want to show that libraries: 1. hold (or at least should hold) your intellectual safety very dear, and 2. can do so within the parameters set up by the community. The Connecticut librarians didn't let the person under investigation know about the National Security Letter in a hushed conversation in a darkened parking garage. The librarians didn't simply ignore the law. No—they went through the courts seeking not to gain some unique privilege for themselves, but to restore a long-standing balance between disclosure, privacy, civil liberties, and free speech. Libraries still have to give library user information to law enforcement, but only with judicial oversight.

While I don't think we can expect much more from librarians than risking jail to uphold the law and ensure the community's right to explore ideas, we can expect libraries to extend their ideals beyond the walls of the library. For example, most libraries go to great pains to keep what you do at the library private. Libraries work hard to eliminate Internet browsing history after each use. Libraries purge circulation records and do not track the books you are looking for. They do a pretty good job (I might argue too good of a job) of getting rid of your history within the library and library systems. However, when was the last time your library let you know that every click and keystroke you use to search for library books from home can be captured by your Internet Service Provider (ISP)? Do they let you know that you may be using an "anonymized" computer in the library, but by logging into Facebook your Internet browsing can be tracked by the social network company…even when you are not on Facebook?

Today, the threats to your privacy come not from Big Brother (the government), but from thousands of "little" big brothers. Facebook, Google, Twitter, banks, and insurance companies have spent millions upon millions of dollars to track what you are looking at, where you are, and what risks you represent.

Alexis Madrigal wrote about this in the National Journal:

"There's nothing necessarily sinister about this subterranean data exchange: this is, after all, the advertising ecosystem that supports free online content. All the data lets advertisers tune their ads, and the rest of the information logging lets them measure how well things are actually working. And I do not mean to pick on The New York Times. While visiting the Huffington Post or The Atlantic or Business Insider, the same process happens to a greater or lesser degree. Every move you make on the Internet is worth some tiny amount to someone, and a panoply of companies want to make sure that no step along your Internet journey goes unmonetized."[79]

If libraries need to be providing us access to these services and training us about them, don't they also have an obligation to let us know about threats to our privacy? Can't they represent the community voice in the public discourse on such issues? Expecting more from libraries means expecting them to be informed about threats to privacy on a global scale and having them actively working with the community to come to an informed level of consent on disclosure.

This is exactly what we saw in Lebanon, New Hampshire. The public library, with their board's approval, set up a Tor node[80]. The Tor network allows people to use the Internet anonymously by redirecting traffic through a complex global set of nodes, making it nearly impossible to determine the source of an Internet transaction. Inherently enough, Tor was originally develop by the U.S. military to protect intelligence communications[81]. It has since been used by dissidents in repressive regimes and, yes, video pirates alike. The library decided to be a part of the network to preserve their members' privacy.

A day after the library set up the node (a server that helps bounce and anonymize Internet traffic) the U.S. Department on Homeland Security and local law enforcement asked the library to take down the node. The authorities noted that Tor can be used to hide illegal and illicit activity. Of course, the Internet in general, and the phone system, and the mail, can be used to hide these activities as well. A month after taking down the node the Lebanon Public Library Board, in a public hearing with no dissenting voices, restarted the Tor node.

Now you may know of Tor, or not. You may support the action of the board, or not. The important idea to take away from this example is that the library not only sought to actively protect the privacy of its members, it did so through a process of community inclusion and discussion. You should expect your library to not simply *believe* that your intellectual safety is important, you

[79] Alexis Madrigal, T. A. (2012, March 1). I'm being followed: How Google—and 104 other companies—track me on the web. *National Journal.* Retrieved from http://news.yahoo.com/im-being-followed-google-104-other-companies-track-130904200.html (accessed on December 4, 2015)

[80] http://lj.libraryjournal.com/2015/09/digital-resources/new-hampshire-library-reaffirms-tor-project-participation/#_

[81] https://en.wikipedia.org/wiki/Tor (accessed December 4, 2015)

should expect your library to *actively work* to educate you on the issues of intellectual safety and demonstrate the means by which it is helping you.

Build on Your Motivation to Learn

To talk about motivation, I need to return to the Fayetteville Free Library. You see, while we were busy printing out the robot and the ring on the 3D printer, the librarian, Lauren, mentioned an upcoming open house for the Fab Lab that would include the 3D printer, making jewelry, and making things in Duct Tape…if she could find someone who made things with Duct Tape. Riley, my 11-year-old, said "I make stuff with Duct Tape," and before Lauren knew what was happening he was flipping though pictures of his creations on his phone.

"Great," said Lauren without missing a beat. "You could teach it." And he did.

Clearly, the experience at the Free Library also had an impact on Andrew youngest because a week later he said he had a great idea for this year's science fair. "I'm going to design the library of the future!" he declared. Within 10 minutes he had sketched it out on paper.

Twenty minutes after that, he and his brother were building the library in Minecraft, a popular game like SimCity. Sure, they could build it in Legos (Andrew later did), but Legos don't have working roller coasters and you can't invite your friends from around the world to walk through it. (There are, as I write this, over 100 million registered Minecraft users[82].)

Figure 4: Library of the future in Minecraft designed by Andrew and Riley Lankes

[82] http://www.gamespot.com/articles/minecraft-passes-100-million-registered-users-14-3-million-sales-on-pc/1100-6417972/ (accessed December 4, 2015)

The next Saturday, we took the "library of the future" on a disk to Fayetteville, and printed it out.

Figure 5: Andrew holding his Minecraft model of the library of the future, printed on the MakerBot Thing-o-Matic

Now, you might think this is the point when I start to talk about millennials, or the power of Fab Labs, but that's not my point with this story. What sticks out to me is the motivation my sons had and how that was encouraged by the librarian. Sure, the 3D printing was cool, but that's not what hooked Riley. What hooked him was when Lauren asked him to teach the Duct Tape class. What got him hooked was when he came into the Fab Lab two weeks later and saw that the librarians had hung his Duct Tape Fab Lab sign on the door. What got Andrew hooked was sitting in front of the MakerBot while it printed during the open house, and getting to explain how it worked and what it was printing.

Identifying and sparking motivation to learn is the most important form of facilitation. Without it, no one is prompted to learn, and all the programs, services, and activities of the library are for naught.

There are many ways libraries can inspire community members and transform their motivation into learning, creating knowledge, and, ultimately, improving society. However, one of the most powerful is to cede some control and authority over the library to the community itself. This is more than simply talking about an oversight board or committee. This is more than talking about the community ultimately owning the library by funding it

through tax dollars or tuition. This is allowing co-ownership of library services.

The power of co-ownership is hardly limited to libraries. While my children were working on these projects, the university faculty I am on was looking for new models of teaching. One that is frequently discussed is the "flipped classroom." The one where students do homework in class and classwork at home: working on projects in class and listening to lectures online. But in the middle of this discussion—in the middle of 3D printing—it hit me. I apologize to all those who find this obvious, and I could probably have said these words before, but it really hit home for me:

While we sit here and debate when we deliver our lectures, or how long they are, or in what channels, the real flip is already occurring. The lecture? The long-form or short-form oratory? That is not the point of this. No, the real flip is that faculty (teachers, librarians) are losing control. The real flip is the change from librarians and professors thinking they have the content and that they are just debating the delivery, to the truth that they need to relearn the content continuously right alongside their students, members, employees.

That last bit, the relearning bit, is crucial. This is not simply ceding control or turning education into one long do-it-yourself project. There is value in good teachers and good researchers. They will always have a strong ability to guide. It is about realizing that truly co-owning a curriculum or library program requires constant reinvention, if for nothing else than applying it to new contexts. It is why the university model of researcher/teacher has worked so well for so long. It is in the disconnection of these two things that we run into breakdowns.

The same is true of our libraries. The Maker Space concept that the Fayetteville Library is trying to capture—a place to not just study something, but to create—does not work unless all are involved—librarians, members, experts, children, parents—and understand that they are all learning at the same time. If a kid shows up and is trained and treated as a consumer, the Maker Space will fail. No $2,000 MakerBot can match the quality of store-bought Legos or toys. No, the trick is to show the child, or parent, or member that they are part of a learning process and discovering something new—even if it is only new to them. They have to be in on the truth that we are all just figuring this out as we go. And if we have it all figured out? Time to try something new.

I know there are long discussions to be had about the role of experts, the value of experience, and the pedagogy of well-known and new areas. I get that. I know I am oversimplifying here, but that is kind of the point. Those discussions of expertise and pedagogy need to be just that—discussions and conversations. They are messy, and there is a huge amount of ego riding on them. Yet if we don't open those conversations up beyond the faculty—beyond the librarians—then we have shut down a most remarkable

opportunity for motivation and community member involvement. And if we shut down conversation we have failed in our mission. We need to expect more.

Teacher, Librarian, Tinker, Spy

If you take one thing away from this chapter, take this: you should expect your library to be a proactive facilitator of knowledge. There is an excellent chance you will ask: why is this a library and not a school? In fact, if you look at the four means of facilitation of knowledge, you could easily apply them to folks like teachers, journalists, even publishers. Certainly the mission of improving society through knowledge creation would apply across these professions.

The short answer is that the means of facilitation do not uniquely apply to librarians and libraries, but how these means are applied do. Libraries are defined not by their buildings, but how they combine the mission, the means of facilitation, and, ultimately, a set of ethics and skills. I firmly believe that over time the fields of knowledge facilitators that include journalists, teachers, and publishers will grow closer. We'll return to that when talking about "The Facilitators" in Chapter 7. For now, we need to spend some more time on those ethics and what exactly I mean by "improve society."