

6. Communities: Expect a Platform

People with only a passing interest in libraries have probably heard of Melvil Dewey. If you haven't heard the name, then you probably have heard of the Dewey Decimal system, the scheme for organizing books Dewey developed at the end of the 19th century. The system was based on Dewey's conviction that standardization and uniformity in libraries would help them grow and prosper.

Dewey was doing his work at the end of the Industrial Revolution and the growth of Henry Ford's assembly line. All manner of industries were reinventing themselves towards mass production and common procedures. This was the rise of professional guilds (such as the American Bar Association for lawyers) that put in place strict rules so that all professionals had common skills, common preparation, and common outlooks.

This drive for standards, efficiencies, and mass production has had a profound effect on libraries and how they are perceived. Book palaces, professional librarians, quiet places, stacks, and card catalogs now part of library nostalgia can be traced back to this idea of industrial standardization. In this model you define a library by a limited suite of functions (book lending, answering reference questions, cataloging) and physical characteristics (stacks, reference desk, reading rooms). But as you have read, you should expect so much more than this from your library.

Maker spaces, job training, mobile hot spots, oral histories, character assassination classes: these don't fit into nice tidy definitions. What's more, it

is up to you and your community to define library functions based on local needs and local definitions of improving society. We need to expect more than defining a library as one set of functions provided to every community across the globe.

Library as Platform

The new view of the library is not as place, or as collection, but as a community platform for knowledge creation and sharing. This is more than just a rhetorical shift. It has real implications for how libraries organize themselves and how they use technology.

The term platform is borrowed from the information technology world. A platform is a suite of services and systems that allow for a wide variety of functions that are not predetermined. To simplify that think of the iPhone. Not the iPhone you or a colleague may be carrying today, but think of the first iPhone.

Some may not remember, but when the first iPhone was released there was no app store, no “there’s an app for that” commercials, no Angry Birds. The first iPhone had a set of apps pre-loaded by Apple that you could neither delete nor add to. You could read email, surf the web, listen to music, text someone, check the weather, get maps, watch YouTube, and check stocks, and that was about it. This is how we used to define libraries—predetermined and standardized. The same functions for all. Now think about the iPhone or any smartphone today. The phone itself is hardware and an operating system. But more importantly, it is a platform that allows anyone to build apps.

Apple provides the platform (how to handle input like touch, how to make a phone call, how to communicate via WiFi), but it is up to the app developers to determine what that platform can do (play games, monitor your pulse, edit files on a workplace server, etc.). Instead of the phone dictating your mobile experience, it facilitates you creating something that is completely unique to you. That is the shift you should expect from your library. Your library shouldn’t tell you what you *can* do (read, borrow, search), it should provide your community a rich toolbox to build what the community *needs* to do.

Let me give you some examples.

Community Garden

The platform the library provides can have little to do with technology. In Cicero, New York, the library platform is built from the ground up—literally. the Northern Onondaga Public Library (NOPL) has built the LibraryFarm⁹⁴. When members of the community expressed interest in learning more about gardening and farming, the librarians of NOPL went

⁹⁴ <http://www.nopl.org/library-farm/> (accessed December 5, 2015)

beyond simply buying books on the matter, or hosting discussions of working in the earth; they build a farm.

The community dug up and tilled a plot of soil next to the library. They divided the land into parcels, and people could “check out” a parcel for the season. Now folks with little gardening experience or without a yard could come and plant, and get advice from experts in the community. This led to a series of talks and demonstrations, and all of them were grounded (sorry about that) in doing. Once the crops came up, the excess harvest was shipped to local food pantries. What started as a discussion of gardening became an expanded platform for learning about nutrition, buying local, and a whole host of other lessons. Boy Scouts build raised garden beds. Girl Scouts built an “Insect Hotel” to attract insects needed for organic farming and educate the community.

Reorganizing the Research Library

I consulted with a large research library that was in the midst of reorganizing after an administrative death spiral. The dean of the library had been fired, morale of the staff was non-existent, and the provost had hired a new director to bring the library back to life. That new director had brought in consultants (including me), not to come up with a new plan, but to bless the one he had created (which was really good). The centerpiece of that plan was a reorganization of library staff, reports, and functions.

Most libraries are structured into two big sections: public service, which includes everything facing the community; and technical service, the back-office library operations. So when you walk in and browse the shelves, or check out a book, or talk to a librarian, you are using public services. The part you don't see, like buying materials, cataloging them, and maintaining the Integrated Library System, all fall to technical services. This model of library organization is so prevalent that you find it in most academic and public libraries in this country. It is so widespread you will also find it in Africa, Europe, and throughout Asia.

Why is this model everywhere? Well, a lot of it comes from how we educate librarians, and a lot of it comes from an increasingly outdated model of library as book warehouse. Technical services are where the books come in; public service is where they go out. But is this how your community works? Does this model match a more participatory view of communities?

In creating his plan, the new director took a look at one of his target audience: researchers. His was primarily a research-oriented faculty, but also included doctoral and graduate students, and advanced undergraduates focused on the discovery of knowledge. The director found that a researcher needs to consume a great deal of information at the start of a study. The researcher needs background materials, examples of previous studies, and access to new concepts and theory. At this stage, the division of public service

and technical services still makes sense. But as the researcher progresses, it begins to break down.

For example, say a researcher gets external funding. Increasingly, as part of a proposal, researchers must lay out how they are going to collect data, how they are going to keep that data over a long period of time, how they are going to disseminate that data (not just published papers, but the actual collected data), and how they are going to secure any private information provided by people involved in that study. Libraries today actually have systems to do this. Normally such operations are in the back office: technical service. The back office is also where libraries create a website around a project, or store papers and conference presentations based on the study. Because the researcher only interacts with public services, he or she has a hard time getting the technical services he or she needs. The old division of what faces the community breaks down, because the researcher is both a consumer and producer of information.

This distinction between community-facing and back-office also gets cloudy when looking at the teaching functions of a college. The faculty may be consuming information in the form of papers and media to bring into the class. They are also, however, creating their own collections and unique materials. How do these member-produced items fit into the library? Currently they don't, and all this information sits on the hard drive of a faculty member who may or may not keep it, or may or may not leave it with the college when retiring or getting another job.

So, let's go back to the research library that hired me as a consultant. The library director threw out the technical services and public services model. Instead he organized his services by research and teaching. If a researcher came in, he or she met with an assigned research librarian. Together, they went over the project, and the assigned librarian would organize the services of the library around the faculty member's project. The faculty member didn't need to know, or care, that it was technical services that built a website for the project. The faculty member didn't need to know that it was the reference department that did a literature search on the topic, or that it was actually IT that maintained a secure hosted data store to protect research data.

Likewise, teaching faculty would meet with their assigned teaching librarian to go over instructional services the library could offer them, put materials on reserve for classes, and even request copies of textbooks to be added to the library collection.

The library in this case became a human platform for accelerating the strategic goals of the university: better research and better teaching. In this example, however, folks were expected to come to the library. What if the library embedded itself in the community?

eScience

In 2001 Ellen Roche, a 24-year-old lab technician, entered into a clinical trial at Johns Hopkins University's Asthma and Allergy Center. The trial was investigating how the lungs responded to chemical irritants. Researchers had Roche inhale hexamethonium. Roche was the third volunteer to do so in the study. The first volunteer had developed a slight cough that lasted a week. The second volunteer had shown no adverse reactions. Roche developed a slight cough that got worse and worse. Five days after inhaling the chemical, Roche was admitted to intensive care. Less than a month later, she was dead.⁹⁵

What makes this story all the more tragic is that Roche's death could have been avoided. As part of the funded clinical trial, the researcher did a literature search. He searched a database that indexed studies from 1960 to the present day. He found nothing on hexamethonium. However, had he not restricted himself to the Internet-accessible version of the database he would have found studies from the 1950's linking hexamethonium to significant lung problems. Because of Roche's death, all drug studies at Hopkins must now include a consultation with a librarian and pharmacist.

This story is tragic to be sure. However, I fear death by lack of information is inevitable. You will recall the discussion of the broken knowledge infrastructure. It is growing in size and complexity. Today's scientists are confronted by an increasing body of evidence in databases, a huge growth in data available for study, more complex problems that are requiring greater collaboration with researchers in other institutions and in other fields, and whole new platforms for scientific investigation. Take, for example, the search for the fundamental particles of the universe at the Large Hadron Collider in Europe.

The Large Hadron Collider is a loop of complex electronics and powerful magnets almost 17 miles long buried under the countryside in Switzerland and France. It has the ability to accelerate particles to nearly the speed of light and precisely smash them together. In the collision, the particles splinter and release fundamental particles like quarks and, hopefully, the so-called God particle, the Higgs boson that gives the universe mass.

The Collider cost approximately \$9 billion to build over more than a decade of construction. Needless to say, you don't build one of these for each set of scientists or universities doing physics research. Scientists from around the globe collaborate either virtually or in person to work with the Collider. To give you a sense of just how complex it can be to support this scale of

⁹⁵ Keiger, D. & De Pasquale, S. (2002). Trials & tribulation. *John Hopkins Magazine*, 54(1). Retrieved from <http://www.jhu.edu/jhumag/0202web/trials.html> (accessed December 5, 2015)

scientific research, one article published from an LHC experiment listed 3,046 authors.⁹⁶

These forces of large data and wide-scale collaboration are not limited to physics. Humanities scholars can now dig through hundreds of thousands of digital texts as part of their work. Social scientists are analyzing billions of web pages and social media updates studying how we behave online. Pharmaceutical companies can now generate millions of possible chemical combinations to fight disease—each one needing to be explored to make sure a new drug can help you, not kill you.

To help accelerate science and avoid the potential disastrous consequences of information overload, a special corps of librarians is now being hired into laboratories. These librarians work directly with researchers to organize mountains of data, ease collaboration between virtual teams of scientists around the globe, and build tools to investigate a host of new questions. They are learning how to specialize their means of facilitation to the scientific endeavor. To facilitate access to the mountains of data being generated in labs, they use databases and the latest search engines. They also use work-group software and web conferencing to spread good ideas quickly among their teams. They provide researchers training on the latest collaborative tools and ways to seek out funding opportunities. They build a safe environment by ensuring the data is secure. They match the motivation of research staff by helping disseminate their work throughout the field.

While we can't expect every librarian to wrangle 3,046 scientists or bring order to a million points of data, we can expect librarians to go to the community. The community lives within and outside of the library, and so should librarians. From the sole librarian working in a small town to a medical librarian working in a hospital, you should expect your librarians to spend some of their time getting out of the library and into the community. Librarians should sit with faculty, sit on Chambers of Commerce, and be at workplaces, not wait for the community to come into the library.

Of course, there are times when it makes sense to expect the community to come into the library. We have just talked about embedding librarians within the community; what if we embedded the community into the library?

Public Library Incubators

I mentioned before that a number of libraries around the world were organized in a single way (public and technical services). It turns out they are physically laid out the same way as well. This is not an amazing coincidence. Libraries have been seeking standardization over the past century or so. These

⁹⁶ ATLAS Collaboration (2012). Search for down-type fourth generation quarks with the ATLAS detector in events with one lepton and high transverse momentum hadronically decaying W bosons in $\sqrt{s} = 7$ TeV pp collisions. Retrieved from <http://inspirehep.net/record/1091070> (accessed December 5, 2015)

standards are ingrained in policies and even in the law. In Dallas, all branch libraries were built or refurbished around a master plan.

The Dallas master plan dictated the number of square feet, the number and placement of stacks, the location of the information desk, and so on. This leads to a sort of McDonald's-like familiarity. No matter where you go, you know what to expect. Except even McDonald's has realized that reflecting local culture builds a greater feeling of local investment.

Corinne Hill, then director of the Dallas library system, realized this, too, and sought to shake up the master plan. In neighborhoods with a large artist community, she helped design libraries with gallery space and painting lofts. She worked with local developers to come up with libraries that reflected the community in look and feel. When talking about what these buildings had in common she said that she put collaborative spaces in the middle, and books around the outside, as if they were art. Now you might take that as a sort of dismissal of books as decoration, but that's not what art is for. Throughout history art has sought to inspire, to educate, to provoke, and to remind. The books were not there for decoration; they were there to fuel the real work of the library: facilitating collaboration.

When Hill moved to head the Chattanooga Public Library in Tennessee she took one step further in designing her central library. The fourth floor of the building was crammed full of old furniture and stored items long forgotten. Corinne and her team knew the community needed more, so she cleared out the floor and built:

...a public laboratory and educational facility with a focus on information, design, technology, and the applied arts. The more than 12,000 sq foot space hosts equipment, expertise, programs, events, and meetings that work within this scope. While traditional library spaces support the consumption of knowledge by offering access to media, the 4th floor is unique because it supports the production, connection, and sharing of knowledge by offering access to tools and instruction⁹⁷.

The 4th Floor has featured international technology conferences, experiments with weather balloons, and features gigabit access to the Internet, virtual reality gear, power tools, and all manner of means of exploring, inventing, and learning.

This model is not unique to Chattanooga. The Ann Arbor District Library has on staff a number of production librarians. Their job is to work directly with the community to produce new tools and projects. Someone comes in with an idea for a new website? The production librarians can help

⁹⁷ <http://chattlibrary.org/4th-floor> (accessed December 5, 2015)

them build it. A video project? Production librarian. The library is a place for the community to create.

Eli Neiburger, an associate director for Ann Arbor who oversees the production librarians, told me about a great idea. A community member came into the library and asked if his books at home could be added to the library catalog so people could borrow them. The member was more than willing to drop off the books if they were requested and thought other people would share their materials as well. In the way we currently think of libraries, this is an odd idea. After all, members' books are not owned by the library. But when you think of the library as a platform, and a library being "of the community" instead of "for the community" it makes perfect sense. In fact, this pooling of personal collections is how many libraries in this country started.

But why stop at the community's stuff? Why not use the library as a place to share the entire community? Libraries around the globe are starting to loan out people. You can check out production librarians in Ann Arbor, or a 3D printing librarian in Fayetteville, and some libraries are loaning out firemen and lawyers and accountants. The community experts want to volunteer their time, and the library can help maximize their efforts. In Europe there are now prejudice libraries where community members can check out a prejudice. Never talked with a Muslim? A gay or a lesbian? A Latino? A Republican? Now you can. This works because the library provides a civic and safe space to have such conversations.

The Community as Collection

The previous examples demonstrate how a library platform can be shaped to meet the needs of a community. However, there is another very important part of a shift to library as platform: the people involved. In their 2014 report "*Rising To The Challenge: Re-Envisioning Public Libraries*"⁹⁸ The Aspen Institute identified three key assets that libraries have: people, places, and platforms. While the Aspen report talks about these in terms of public libraries, they hold up across all library types. We have already delved into the platform concept, let me now talk about people, and how you should expect the concept of people as assets in a library to change radically.

For far too long librarians and the communities they serve have been focused on collections. Think of a library and you probably think of well stacked shelves, or terminals glowing with databases and articles. This was the collection. The materials and resources. However, the true collection of any library is not these tools, but the community itself. Libraries of today are becoming hubs of social and intellectual engagement. Rather than simply

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<http://csreports.aspeninstitute.org/documents/AspenLibrariesReport.pdf> (accessed December 5, 2015)

linking you to a resource, they are linking you to experts, neighbors, colleagues, and fellow learners. Once again this is more than a rhetorical shift, and examples may better explain the change.

Most libraries have some mechanisms for community volunteering. Public libraries have community members wanting to help. School libraries have student helpers, and even parents who help out. In many of these cases the volunteers help do the work of the library. They shelve books, empty return boxes, check out books, etc.

This was the case in the Pine Grove Middle School as well. Students would ask the librarian, Sue Kowalski, if they could help out. At first she had them shelving and sorting out furniture. However, it became just as much work to organize the volunteers as she was getting back. She then realized, she was doing it backwards:

I was thrilled to have so many students who wanted to “help” during their non-academic times in school. Enthusiastically, I found and created jobs and kept them busy. It started to grow like wildfire. Word spread that I loved “little helpers” and soon many were sent my way for various reasons. I began to realize that managing these volunteers was becoming a full time job for me and I wasn’t sensing the jobs would get done unless I was involved. The impact of the tasks was low (straighten chairs, dust, straighten books, sharpen pencils). Initially, I thought about sending out a big “Thanks, but no thanks” message and luckily, I had a revelation of wisdom where I realized that the energy was positive and priceless but the implementation of these willing helpers needed a revised approach⁹⁹.

The revised approach? Have them organize themselves, and have them use their own expertise rather than turning them into “little librarians.” Calling the group iTeams, she began to have them not shelve books, but select books and build displays on themes (after all, they knew the books better than she did). Rather than have them organize chairs she had them tutor other students, and eventually teachers, in different software. Once again, the students were much more fluent in these tools. Today her iTeam select books, teach technology courses, support teacher-led projects, much as graduate students assist faculty in college. Her revelation, and what you should expect from your library, is that the community is the true collection with expertise and skills that the library can share with other community members.

⁹⁹ from the New Librarianship Field Guide. MIT Press

In Fayetteville New York, they made the same realization. Now with every book borrowed, or kindle loaned, or program attended, community members get a simple survey with three questions:

1. What do you love?
2. What are you passionate about?
3. Are you willing to teach/share it with the community?

The librarians then reach out to these community members and support the member in building new programs. Like what? One elementary teacher put together pre-literacy kits for parents (and grandparents). In the kit is a board book, a lesson plan, and normally a toy to help toddlers associate concepts and actions with words. A scientist made kits with oscilloscopes and telescopes. In the Fab Lab are programmable sewing machines. The librarians have no idea how to use them, but sewers from the community come in regularly not only to use the machines, but teach other community members how to sew.

The British Library replaced its Business Reading Room with an incubator to help start businesses¹⁰⁰. Yes you can search databases and check out books, but you also can confer with mentors, and accountants, and small business experts. The floor of the library is a place to work and meet and learn. Where once the library was a place for the librarians to do their work, and offer their services, the library is now a place for the community to come and share.

All of this harkens back to the key role of learning in the mission of the library. Librarians aren't teachers, and members aren't pupils. Community members and librarians are constantly learning together. Everyone in the community has something to share and provide, how can the library unleash that potential? Sure our libraries are filled with the writings of great scholars and artists. But our communities are also filled with great expertise and knowledge. The community helps bring the ideas of the past into the present. The collection of your public library is not the books in the building, but the engineers, writers, lawyers, builders, and dreamers in your neighborhood. The collection of your academic library includes the faculty pushing the bounds of science, students with passions around music, a whole host of scholars and researchers on a quest to uncover the mysteries of the universe and the human condition.

What are you passionate about? You should expect your library not to simply answer your questions, but join you in that endeavor and link you to others who share your excitement.

¹⁰⁰ <https://www.youtube.com/user/BIPCTV> (accessed December 5, 2015)

Libraries as Place

The third asset the Aspen report identified was “place.” In many libraries this is a physical space. However, most libraries also provide a place, or presence, on the Internet. Places are very important, because they are truly the manifestations of learning. While this concept was discussed in Chapter 2’s discussion of the third space, it is worth expanding it here.

I have talked before about libraries as aspirational institutions. Communities large and small build libraries to be monuments as much as they build them to be functional spaces. Architects use libraries as portfolio pieces, rich in marble and mahogany. This is appropriate. The community should look at physical libraries as representatives of their highest ideals.

In the past, however, this has been, frankly, annoying. Libraries may be aspirational, but they still need to be functional. All those libraries that Carnegie built a century ago? Many have them have been abandoned or repurposed because they are too small or too inflexible for larger collections, wireless networks, and new services. There are many librarians who groan when an architect is hired because too many architects see a library as a beautiful showpiece for the community to pose in and not a place where work needs to be done.

However, that is changing. Why? The short answer is a new approach (detailed in this book) and Moore’s Law. Intel co-founder Gordon E. Moore stated that either the number of transistors on a computer chip would double every two years or the cost of putting the same number of transistors in the chip would halve. Moore’s Law, as his theory has come to be known, has held up over 40 years, has been used more broadly to talk about how technology doubles in capability or halves in price every two years. This can be pretty striking and has held up in study after study. A computer from 1982 weighs 100 times as much, is 500 times larger by volume, costs approximately 10 times as much, and runs 100 times slower than the average smartphone in your pocket today.¹⁰¹

How does this concept— of digital technology speeding things up and shrinking them down—play out in a library? Does the building get smaller? Of course not, but libraries of the past were infrastructure in which librarians would do their jobs. Today that infrastructure is getting smaller and smaller. Encyclopedias that used to take up shelf space are now searchable from a computer. Card catalogs that would take up substantial floor space are gone, now searchable on that same computer. Microfiche is scanned and on the computer.

This shrinking through technology has had big effects. The first is on the design of the physical library. Stacks of physical resources can now be compressed into smaller space, allowing robotic systems to retrieve them, like

¹⁰¹ http://en.wikipedia.org/wiki/Moore's_law (accessed May 8, 2012)

at the Joe and Rika Mansueto Library at the University of Chicago.¹⁰² The books and physical items are stored underground on shelves 50 feet tall, and retrieved to a glass-enclosed dome above ground where the university community can meet and study. New building materials allow light to flood into libraries and make them innovative and inviting spaces.

The second effect has been on the librarians. Now the librarians can leave the building and facilitate knowledge. Most of their needed tools are available through tablets and smartphones. Libraries can recruit workers from all over the globe to aid in digitization, building web-based tools, and even providing question answering 24 hours a day because fast digital networks make telecommuting a reality.

This may lead you to ask, as many communities have, whether we still need the physical library at all. The answer is up to the community. As the librarians need less and less space to do their work, the community needs more and more space to interact and create.

Remember the Dallas Public Library branches? One of them was going to anchor a neighborhood redevelopment. When the developer was asked why, without prompting he talked about the third space concept. He said he could build places to live, he could mix it with places to work and shop, but he needed a place for the community to come together and develop identity. For him, that was the library.

This concept is not just about public libraries, either. Universities are finding they need a place beyond the dorm and classroom. Student centers are nice, but often students use the library as a place to be productive and social because learning is a social activity. Many successful school librarians can tell you about how the library becomes a refuge for students who don't fit in or who are seeking a place to bond with other students outside of athletics. Corporate libraries are interesting places that often mix company workers with people from other fields and disciplines that have come to use resources and expertise. Government libraries, such as the Library of Congress, create fellowship programs to encourage scholars from around the world to come and interact with government employees and policy makers.

This concept of the library as community space is hardly new. I've already talked about the ancient Library of Alexandria that was built with colonnades and rooms to maximize the interaction and discussions of scholars. Technology and a renewed focus on the community are allowing us to reclaim libraries for communities. You should expect your library to be a community space—a place for the interchange of ideas and the creation of whole new concepts.

This, however, turns us once again back to your responsibility. A building alone can do nothing. Simply building a structure—no matter how

¹⁰² <http://mansueto.lib.uchicago.edu/shelving.html> (accessed may 8, 2012)

grand, or how representative of the community aesthetic—is not enough. Cramming a beautiful building full of books does not a library make. It takes a community commitment and a group of dedicated facilitators to truly transform brick-and-mortar into knowledge and community. Luckily these facilitators exist, and we call them librarians.